CHAPTER

13

Introduction to Nursing Research

முடிவும் இடையூறும் முற்றியாங்கு எய்தும்
படுபயனும் பார்த்துச் செயல்.

Accomplishment the hindrances large profits won by effort; These compare, then let the work to be done.

Learning Objectives

At the end of this chapter, the students will be able to:

- define nursing research
- gain knowledge about importance of nursing research
- list out the steps in nursing research
- define the descriptive statistics
- define the inferential statistics
- explain about the current computer applications in nursing research

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Introduction

The meaning of the word 'research' is to find correct answers to questions raised or to find solutions to problems identified.

In the past and for many years, people based their beliefs on presumptions or interpretations of things that they saw or observed in and around them and then came to various conclusions. These conclusions were not tested to find out whether they were correct (valid) or not.

For example, in ancient days, in Egypt, every year Nile river flooded and it left behind very rich soil along the riverbanks which helped people to grow crops for the year. But along with the rich soil, a large number of frogs also appeared. Therefore, the Egyptian concluded that frogs came from muddy soil. Here we can say that scientific research was not used because the people never gave a thought if there can be any other reason for the large number of frogs living in the floods. Later problems were scientifically analysed based on data this is called scientific enquiry.

Every one will agree that if "Health is lost, everything is lost". Nursing is a profession and practice which serves as the foundation in providing care for the sick and needy. The challenges faced by the nursing fraternity is enormous. Thus research becomes the need and necessity in this noble profession.

Nursing is the profession and practice of providing care for the sick and needy. Nurses play significant role in taking care of people. Nursing plays an vital role in the research activity. A well developed and reliable body of knowledge is a foundation for any course of study. Research provides a solid foundation on which individual can develop and refine their basic knowledge and practice. Without knowledge we cannot improve in accustoming people to the latest techniques and therapies like infant care, pain management, grief counseling, health education, home care management, palliative care and related intervention.

Research on nursing practices began slowly, but since 1950, it has been accelerating rapidly. Nursing research continues to develop at a rapid phase and will undoubtedly flourish in the twenty-first century. Broadly speaking, the priority for nursing research in the future will be the promotion of excellence in nursing practices.

Nowadays Health professionals believe in development of knowledge from logical reasoning and problem solving. It helps in identification of problem and planning evidence based care.

Nurses must acquire knowledge in both unstructured and structured method. In unstructured method, own experience,trial and error are followed. The structured method includes logical reasoning, problem solving and the research is conducted in a disciplined format. In general, nurses try to understand a question / problem and search for possible solutions.

The quality of nursing practice and the future of health care depends on up-to-date organized body of nursing knowledge. Research is based on existing ideas and to improve the knowledge of the individuals. The purpose of the systematic inquiry is to find out the evidence based method of solving the problem identified.

The present era of complex health problems makes interdisciplinary research, an important one to find out the study of health and illness experiences of the society. Currently a lot of attention is being paid to research on nursing, which it seems will continue in the years to come, and will have its implications and impact on nurse administrators, nurse educators, as well as practitioners.

Hence, an expanded new knowledge is required for a growing profession. The health care professionals should realize that nursing is developing rapidly and they must be ready to take challenges of currently growing demand of new knowledge and to refine old outdated knowledge.

Meaning of Nursing Research

The word research is derived from the French term researcher, a compound word composed of a prefix 're' and a verb 'search'. Re means 'once again' 'a new', or 'a fresh' and search means 'to look for something'.

It is an systematic inquiry of investigation to validate and refine existing knowledge and to generate and refine existing knowledge and generate new knowledge.

Research is a systematic inquiry that uses disciplined methods to answer questions to solve problems.

Ultimate goal of research is to develop, refine and explore a body of knowledge.

Definition of Research

Research is a systematic and scientific process to solve problems or to answer to questions about facts. Nursing research focuses primarily on developing knowledge about nursing including the care of person in health and illness.

In general, Nursing research is defined as the systematic objective process of analysing phenomena of importance to nursing.

According to **Waltz** and **Bausell** (1981) Nursing research is a systematic formal rigorous process used to gain solutions to problem or to discover and interpret new facts in clinical practice, nursing education and nursing administration.

Wilson (1980) Differentiated nursing research and research in nursing. In that nursing research is concerned with clinical problem. Whereas research in nursing is the broader study of the nursing profession which includes historical, ethical and policy studies.

13.1 Importance of Research in Nursing

1. Research builds an advanced body of nursing knowledge.
2. Research provides a cost effective, and efficient health care.
3. Research moulds the attitude and improves technical skills.
4. Research fills the gap and helps in finding out new knowledge of practice.
5. Research makes individual health care responsiblity and decision making in health related problems.
6. Research modifies the old theories and discovers new theories.
7. Research adopts evidence based practice, while providing care or health education to those who are in need.
8. Research develops knowledge about the current issues happening in medical field.
9. Research provides scientific basis for the practice of the nursing profession on need based intervention.
10. Research prepares the individuals to be a nurse scientists.

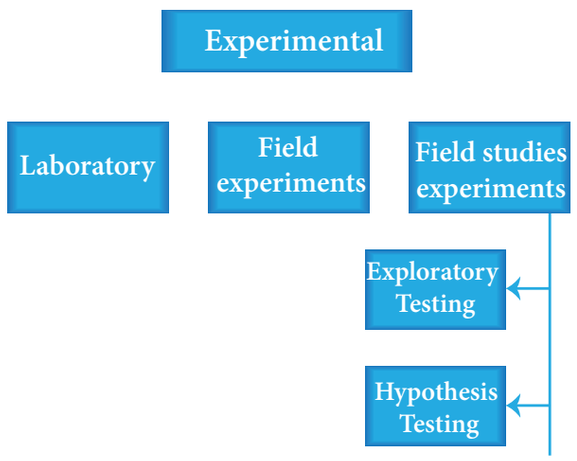
13.2 Types of Research

Research is classified according to their purposes and approaches.

- **Basic research or fundamental research** are carried out in laboratory situations
- **Applied research** helps to evaluate practices and identifies the needs of the person
- **Action research** tries to solve ongoing problems

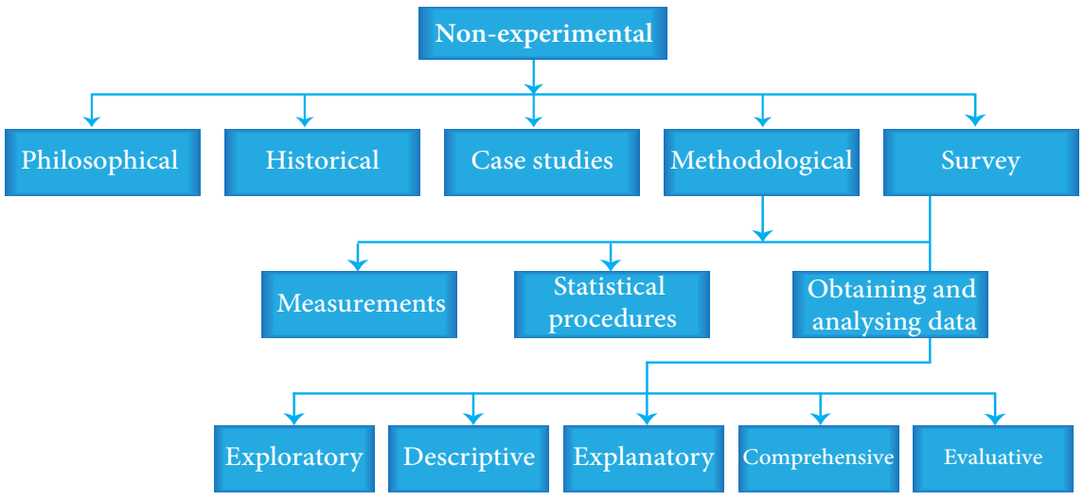
Research Approaches

There are two types of Research Approaches. Namely Experimental and Non Experimental



13.3 Steps in Nursing Research

- Identification of the phenomenon/ problem of the study
- Review of literature
- Deriving conceptual frame work



- Identifying the assumption and formulation of Hypothesis
- Selection of research design
- Entry in to the research site (Pilot Study)
- Protect the rights of the participants
- Planning tools for data collection
- Collection of data
- Analysis of the data
- Communicating the findings

Simple Steps In Research Process

1. **Identifying the problem**: It is a clear finding of the problem that should be studied. In general broad topic area is selected and then the topic is narrowed down to a specific one. It may be from personal experiences or literature sources.

The purpose of the study: During the formulation of the problem statement the commonly used mnemonic is "SMART"

S – Specific

M – Measurable

A – Achievable

R – Relevant

T – Time Bound

This will be easy while writing objectives for the study. Objectives may be single or several.

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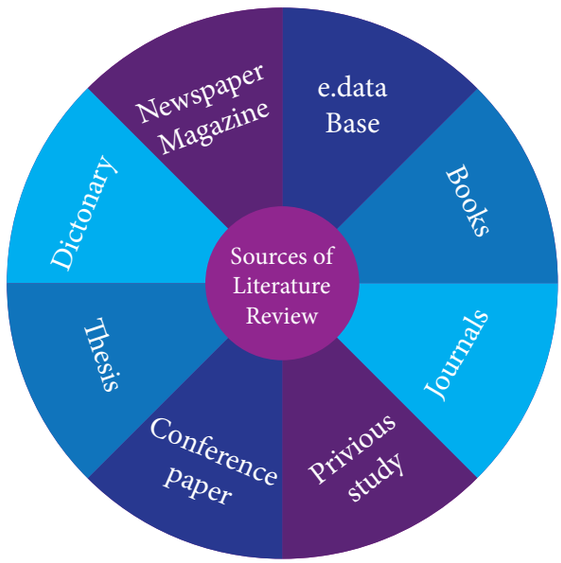
2. **Review of literature:** It is one of the most important step in the research process. A literature review is an account of what has been already established or published on a particular research topic by various researchers.(University of Toronto 2001)



Sources of literature review

3. **Developing the a theoretical/conceptual framework :** It is the valuable part of scientific research. Which helps in the selection of the study characters and in defining them. It also directs to the prediction and the interpretation of the study findings.
4. **Identifying the study Assumptions** : Assumptions are held to be true but have not necessarily seen proven. It influences

the questions that are asked. It is based on the information collected and study interpretation.

There are three types of Assumptions.

i) Universal Assumptions – Beliefs that are assumed to be true by a large percentage of Society.

ii) Assumptions based on theory or research findings- Previous research studies which form the basis for assumptions in the present study.

iii) Assumptions that are necessary to carryout the study – Need to conduct a research study.

5. **Formulating the Hypothesis or Research Question**: Hypothesis predicts the relationship between two or more characters. According to the asked questions in the problem statement. The hypothesis furnishes the answer to it. It is testable or verifiable by the information gathered. The research is guided by research questions that are further elaboration of the problem statement.
6. **Selecting the research Design :** It is the plan for how the study will be conducted as well as concerned with the type of information that will be collected.
7. **Identifying the population/sample**: The population means the complete set of individuals or objects that posses some common characteristics of interest to the researcher. The subgroup of populations is called study sample.
8. **Conducting a pilot study** : A pilot study is a miniature trial version of the planned study. It reveals the feasibility of the study and helps to test the instruments. It also plays a role in gaining experience with the study process and it indicates that where the revision should be made.
9. **Collecting Data** : It is the process of collection or gathering of pieces of information's facts that are related to the study.
10. **Organizing the data for Analysis** : It is the grouping of information's for tabulation and evaluation purpose. A statistician should be consulted in the early and phase of the research process. The statistician can help to follow the appropriate analytical method.
11. **Interpreting the findings** : After the data are analyzed the finding of the result are compared with those of previous studies for further recommendation

13.4 Related Websites/Software Used In Nursing Research

S. NO	USES OF COMPUTER IN	RELATED WEBSITE AND SOFTWARE
1.	Identification and formulation of problem statement	PUBMED
2.	Review of literature	MEDLINE, Open Access Journals
3.	Framing of conceptual framework	Visual display
4.	Planning of research design	Word processing, data base
5.	Preparation of sampling process	Word processing
6.	Data collection procedure	Video recorded, flash based narrator, Led interview
7.	Analysis and statistical calculation	SPSS, ANOVA
8.	Presentation of research	Open source software
9.	Budget mobility	Microsoft office, EXCEL
10.	Reference sources	Vancouver, APA, style

SUMMARY

- **Identifying a problem:** Any problem or question which we want to clarify, instead of assuming the answers or solutions
- **Searching professional literature for possible solutions:** Looking up literature so as to know what has been written or studied about the same problem earlier.
- **Prepare a research question in an answerable or testable format:** Writing the questions related to the study going to be conducted
- **Considering a solution to solve the problem:** In problem – solving methods, one should put down possible ways of solving the problem
- **Making a research hypothesis that can be tested:** Writing a statement making a relationship between various factors
- **Conducting the study or research (Pilot Study):** Conducting the study using the selected tool with minimum participants.
- **Analysing the result:** Making sense of all the data collected by grouping and analyzing during the research
- **Determining if the scientific hypothesis is correct:** Checking back to see if the hypothesis or factors have any relationship with each other or not
- **Applying the variant:** Making a final judgement based on the results and preparing recomadations

GLOSSARY A-Z

Conceptual	–	Strategy for expressing a framework of a study that diagrammatically shows the interrelationships of concepts and statements
Conclusion	–	Synthesis and clarifications of the meanings of study findings
Data	–	Informations that are collected during a study
Data analysis	–	Technique used to reduce, organize and give meaning to data
Data collection	–	Systematic gathering of Information
Descriptive statistics	–	Statistics that allow the researcher to organize the data in ways that give meaning and facilitate insight
Design	–	Blue print for conducting a study
Findings	–	The translated and interpreted results from a study
Hypothesis	–	Formal statement of expected relationship between two or more variables in a specified population
Variables	–	Characteristics of person to be measured
Population	–	The individuals or objects having some common characteristics.
Theory	–	Integrated set of defined concepts used to describe, explain and predict the relationship between study outcome and the view of the nursing theorist.
Intervention	–	Treatment or independent factor while conducting the study.

Evaluation

I. Choose the correct answer

1. Nursing Research started since
   a) 1950
   b) 1960
   c) 1917
   d) 1920

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2. Nursing Research is based on
   a) Systemic enquiry
   b) Improved knowledge
   c) General knowledge
   d) Obtained Knowledge
3. Research means
   a) Careful examination
   b) Search again and again
   c) Simple enquiry
   d) General Enquiry
4. Nursing Research helps to
   a) Fulfill the gap
   b) Decrease the technical skills
   c) Decrease communication
   d) Increase workload
5. Steps in Research excludes
   a) Review of Literature
   b) Communication of results
   c) Programme planning
   d) Presentation of data
6. From the following table select the appropriate steps in the preparation of data analysis

A	B	C	D
Coding	Modifying	Entering	Transferring
Transferring	Coding	Coding	Editing
Editing	Transferring	Transferring	Entering
Modifying	Entering	Editing	Modifying
Entering	Editing	Modifying	Coding

7. Analytical procedure that allows researcher to describe and summarize data is known as
   a) Descriptive Statistics
   b) Inferential Statistics
   c) Health Analysis
   d) Health coding

II. Short answers

1. Define Nursing Research
2. State the steps in Research

III. Brief answers

1. List out the sources of Literature Review
2. State the steps in Problem Solving
3. Common statistical methods in nursing
4. Uses of statistics in Health sciences

IV. Detailed answers

1. Write in detail about the uses of computer in Nursing Research.
2. Discuss the importance of Research in Nursing.

REFERENCE BOOKS

1. Suresh K Sharma (2011) Nursing research and Statistics Mosby, Saunders, Elservier India (P) Ltd
2. Mercy john (2008), Introduction to research, Mid India board of Education of the nurses League Christian Medical Association of India. B. I. Publications Pvt. Ltd
3. Vanitha Vani . K (2010) Introduction to Research Florence Publishers, Hyderbad.

INTERNET LINKS

1. https://www.researchgate.net/figure/Sources-of-literature-review
2. https://www.google.com me country causes frustration.

Practicals

Practical 1

HEALTH ASSESSMENT

Learning Objectives

- On completion of this chapter the learner will be able to
- List out the purpose the health assessment
- Describe the technique followed during physical assessment

Introduction

Health is a state of well being. Assesment is based on signs and symptoms observed, examined. It helps in concluding the condition of the individual based on the findings.

Definition

Health assessment is the evaluation of the health status by performing a physical exam after taking a health history.

Objectives

- To collect data pertinent to patient's health status (Subjective and Objective)
- To identify deviations from normal
- To discover the patients strengths, limitations, and coping resources.
- To pinpoint actual problems
- To spot the factors that place the patient at risk of health problems
- To build rapport with the patient and family.

Client Interview

Oldcart

- Onset of health concern or complaint
- Location of pain or other symptoms related to the area of the body involved
- Duration of health concern or complaint
- Characteristics
- Aggravating factors or what makes the concern or complaint worse
- Relieving factors or what makes the concern or complaint better
- Treatments or what treatments were tried in the past or ongoing

Patient history and interview: should be based on.

- present complaint and nature of symptoms
- onset of symptoms
- severity of symptoms
- classifying symptoms as acute or chronic
- health history
- family history
- social history
- current medical surgical and/or nursing
- management
- understanding about medical and nursing plans
- perception of illness

Physical examination

- A complete physical examination includes: Head to toe assessment

- Skin-
- Head and neck
- Thorax and lungs
- Breasts
- Cardiovascular system
- Rectum
- Genitalia
- Neurological system
- Musculoskeletal system

may be deferred depending on reason for admission

Preparation of patient and environment for Physical Examination:

- Physical examination is done after the collection of health history is obtained.
- wash your hands before and after the examination
- Provide a well lighted, and warm area.
- warm your stethoscope in your hand
- Have patient change into a gown.
- Respect the patient. Privacy at all times. Close doors, pull curtains, keep body parts covered.
- Explain what you are going to do, obtain individuals concern.
- Wear gloves when you may be exposed to blood and body fluids.

Articles required for physical examination

- Stethoscope
- Bp apparatus
- Flashlight
- Reflex hammer
- Pulse oximetry
- Tuning fork
- Gloves
- Neurological exam tray
- Inch tape
- Weighing Machine
- Height Scale
- Pain Scale

Approaches in Physical Assessment

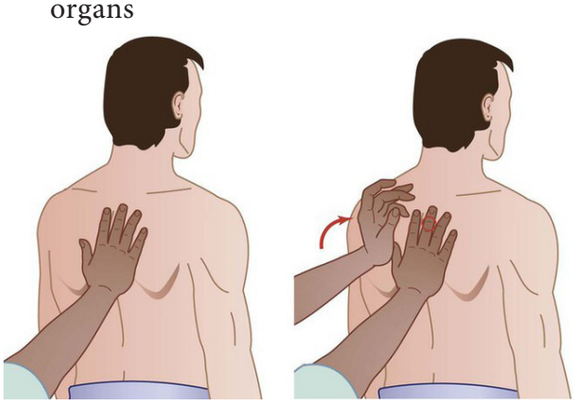
I. **Inspection-** It is a systematic visual examination of the client made by the examiner.

II. **Auscultation-** it is a process of listening to sounds that are generated within the body

III. Palpation- it is touching of the body or a body part with hands to note the size and position of the organs

Abdominal Palpation

IV. Percussion- It is the examination by tapping the fingers on the body to determine the condition of the internal organs



Head-Toe-Assessment

Assessment conducted by _____

LOC

☐ Alert ☐ Drowsy ☐ Lethargic ☐ Stuporous ☐ Coma

Orientation

☐ Person _____

☐ Place _____

☐ Time _____

Situation _____

Vitals

☐ Temp _____ ☐ R _____

☐ BP _____ Pulse Ox _____

Head

☐ Hair

☐ PERLA_____mm

☐ Nose _____

☐ Ears _____

☐ Mouth _____

- Midline tongue _____
- Moist _____
- Lesions _____
- Dentition _____

Neck

☐ Carotid Pulse _____ ☐ JVD + ☐ Trachea midline

Chest

☐ Apical pulse _____ ☐ Muffled ☐ Arrhythmia

☐ Breath sounds. Anterior _____

Posterior _____ Lateral _____

☐ Chest symmetry _____

☐ Skin Turgor (Clavicle) _____

Abdomen

☐ Inspection

☐ Ausculation

- LUQ (active / hypter / absent)
- RUQ (active / hypter / absent)
- LLQ (active / hypter / absent)
- RLQ (active / hypter / absent)

☐ Palpation _____

Upper Extremities

☐ Radial pulses equal, +2

☐Other: _____

☐ Temp vs. trunk (warm/cool)

☐ Grip equal and strong _____

☐ Capillary refill <3 sec

☐ Vein filling rapid

_____

_____

Date: _____

Time: _____

Lower Extremities

☐ Hair present

☐ Edema _____

☐ Foot strength

☐ Homain's (+/-) Claudication (+/-)

☐ Temp Vs. Trunk (warm / cool)

☐ Nails ☐ Yellowed ☐ Thickened ☐ Ingrown

_____

Pedal pulse R (palp /doppler) L (palp/doppler)

ROM

☐ Upper R _____

☐ Upper L _____

☐ Lower R _____

☐ Lower L _____

Strength

☐ Upper R _____

☐ Upper L _____

☐ Lower R _____

☐ Lower L _____

☐ Sensation _____

_____

General Assessment

☐ Weight/Height

☐ BM

Pain Assessment

☐ Acute/Chronic Intensity (0-10)

☐ Location _____

☐ Duration _____

☐ Characteristics _____

☐ Precipitation _____

☐ Frequency _____

☐ Non-verbals _____

☐ Relief factors _____

☐ Sleep _____

Skin Assessment

☐ Description: _____

_____

_____

_____

_____

SUMMARY

Health assessment is very important in any health care settings. It includes health history and complete physical examination. To get a clear picture of the client health status and health related problems.

Practical 2

RYLE'S TUBE FEEDING

Meaning

Ryle's tube feeding is a very useful method of ensuring adequate intake of fluid and nutrients through a tube in to the intestinal tract, in patients who are unable to use the oral route for variety of reasons.

Purposes

- To provide adequate nutrition
- To give large amounts of fluid for therapeutic purpose
- To provide alternative manner to some clients who has potential or difficulties

Equipments Required

- Disposable gloves (1)
- Feeding solution as prescribed
- Feeding bag with tubing (1)
- Water in jug
- Large catheter tip syringe (30 ml or larger than it) 1
- Measuring cup (1)
- Clamp if available (1)
- Paper towel as required
- Doctor's Prescription
- Stethoscope

S No	Action	Rational
1	Assemble all equipments and supplies after checking the Dr.'s Prescription for tube feeding	Organization facilitates accurate skill Performance Checking the prescription confirms the type of feeding solution, route, and prescribed delivery time.
2	Prepare formula: In the type of can: Shake the can thoroughly. Check expiration date In the type of powder Mix according to the instructions on the package, prepare enough for 24 hours only and refrigerate unused formula. Label and date the container. Allow formula to reach room temperature before using. In the type of liquid which prepare by hospital or family at a time Make formula at a time and allow formula to reach room temperature before using.	Feeding solution may settle and requires mixing before administration. Out-dated formula may be contaminated or have lessened nutritional value. Formula loses its nutritional value and can harbour microorganisms if kept over 24 hours. Cold formula cause abdominal discomfort or sometimes diarrhea.
3	Explain the procedure to the diet	Providing explanation fosters client's cooperation and understanding

4	Perform hand hygiene and put on disposable gloves if available	To prevent the spread of infection
5	Position the client with the head of the bed elevated at least 30 degree angle to 45 degree angle	This position helps avoiding aspiration of feeding solution into lungs
6	Determine placement of feeding tube by: Aspiration of stomach secretions Attach the syringe to the end of feeding tube Gently pull back on plunger Measure amount of residual fluid Return residual fluid to stomach via tube and proceed to feeding Nursing Alert If amount of the residual exceed hospital protocol or Dr.'s order, refer to these order	Aspiration of gastric fluid indicates that the tube is correctly placed in the stomach The amount of residual reflects gastric emptying time and indicates whether the feeding should continue. Residual contents are returned to the stomach because they contain valuable electrolytes and digestive enzymes. In the case of non present of residual, you should check placement carefully. Residual over 120 mL may be caused by feeding too fast or taking time more to digest. Hold feeding for 2 hours, and recheck residual.
	Injecting 10 – 20 ml of air into tube Attach syringe filled with air to tube Inject air while listening with stethoscope over left upper quadrant	Inject 3-5mLof air for children A whooshing or gurgling sound usually indicates that the tube is in the stomach
7	Taking an x-ray or ultrasound	It may be needed to determine the tube's Placement
	Intermittent or Bolus feeding Using a feeding bag: Feeding the following 1) Hang the feeding bag set-up 12 to 18 inches above the stomach. Clamp the tubing. 2) Fill the bag with prescribed formula and prepare the tubing by opening the clamp. Allow the feeding to flow through the tubing Re clamp the tube. 3) Attach the end of the set-up to the gastric tube. Open the clamp and adjust flow according to the Doctor's order. 4) Add 30-60 ml of water to the feeding bag as feeding is completed. Allow the flowing to basin. 5) Clamp the tube and disconnect the feeding set-up.	Rapid feeding may cause nausea and abdominal cramping. Water clears the tube, keeping it patent. Clamping when feeding is completed prevents air from entering the stomach

	Using the syringe: Feeding the following 1) Clamp the tube. Insert the tip of the large syringe with plunger, or bulb removed into the gastric tube. 2) Pour feeding into the syringe	
	3) Raise the syringe 12 to 18 inches above the stomach. Open the clamp. 4) Allow feeding to flow slowly into the stomach. Raise and lower the syringe to control the rate of flow. 5)Add additional formula to the syringe as it empties until feeding is complete	Gravity promotes movement of feeding into the stomach Controlling administration and flow rate of feeding prevents air from entering the stomach and nausea and abdominal cramping from developing
8	Termination of feeding: 1) Terminate feeding when completed. 2) Instil prescribed amount of water 3) Keep the client's head elevated for 20-30minutes.	To maintain patency of the tube Elevated position discourages aspiration of feeding solution into the lung
9	Mouth care: 1) Provide mouth care by brushing teeth 2)Offer mouthwash 3)Keep the lips moist	Mouth care promotes oral hygiene and provide comfort
10	Clean and replace equipment to proper place	To prevent contamination of equipment and prepare for the next procedure
11	Remove gloves and perform hand hygiene	To prevent the spread of infection
12	Document date, time, amount of residual, amount of feeding, and client's reaction to feeding. Sign the chart	Documentation provides continuity of care Giving signature maintains professional accountability

CONTRAINDICATIONS

Absolute contraindications

- Severe mid face trauma
- Recent nasal surgery

Relative contraindications

- Coagulation abnormality
- Oesophageal varices or stricture
- Recent banding or cautery of oesophageal varices
- Alkaline ingestion

REFERENCE

SanjitaKhadka et al,(2008) Fundamental of Nursing Procedure Manual, 1st edn. Japan International CooperationAgency (JICA): Nepal, pg - 104

Practical 3

INSTRUMENTS

INSTRUMENTS	Uses
TOOTHED DESECTING FORCEPS 	• Easily grasp small objects and tissues to move and release it. • To hold the tissues
RETRACTOR 	• To separate the edges of a surgical incision or wound
TOOTHED DESECTING FORCEPS 	• To protect from contamination.
CHEATLE FORCEPS OR TRANSFERING FORCEPS 	• Transfering of sterile articles and equipments from one to another and pick autoclave articles
ALLIS TISSUE FORCEPS 	• To hold the skin • To pick up a fold of peritoneum during laparotomy • To hold linea alba while closing midline incision.

ARTERY FORCEP 	• To grasp vessels and allow ligation of those vessels • May also used to grasp tissues, sutures and other prosthetic materials.
SPONGE HOLDING FORCEPS 	• Handle sponges, gauze and sensitive materials
THUMB FORCEPS 	• Used for grasping, compressing, cutting, pulling tissue.
SUTURE REMOVAL SCISSORS 	• To remove sutures on skin and mucous membrane
NEEDLE HOLDING FORCEPS OR NEEDLE HOLDER 	• To hold or grasp curved needle during various suturing procedures
BARD PARKER HANDLE OR BP HANDLE 	• To hold the scalpel. • To cut skin, tissue and vessels • For sharp dissections

Practical 4

DIET FOR VARIOUS CONDITIONS

ANTENATAL DIET MENU

RECEIPIE NAME: AMARANTH KEERAI CURRY

Ingredienets	Quantity
Amaranth keerai	200 gms
Onion, big	50 gms
Green chillies	10 gm
Coconut scraping	20 gm
Oil	10 gm
Salt	1 tsp

Nutritive value / serving

Calories	300Kcal
Proteins	10 gms
Calcium	850 mgs
Iron	8 mgs
Carotene	11,000 µg
Vitamin C	210 mg

Method of preparation

Pick and wash amaranth keerai leaves. Chop the amaranth, onions and green chillies. Heat the oil in a kadai. Sauté the chopped onion, and green chillies. Add the chopped amaranth, salt and cook till soft. Sprinkle the coconut scrapings and serve it hot.

CARDIAC DIET MENU

RECEIPIE NAME: SALAD

Ingredienets	Quantity
Lettuce leaves	100 gms
Carrot	25 gms
Beans	25 gms
Green peas	25 gms
Salt	To taste
Lemon juice	1 no
White pepper	A little
Beet root	25 gms
Cucumber	25 gms

Nutritive value / serving

Calories	140 Kcal
Proteins	8.7 gms
Calcium	280 gms
Iron	20 gms
B.carotene	3500 µg

Method of preparation

Steam cook beet root slices, green peas and beans. Slice cucumber. Grate carrots. Place lettuce leaves as the outer ring. Arrange cucumber slices on the next circle. Next comes the beet root slices. Place carrot, beans and peas in the centre. Squeeze the lime juice over this. Sprinkle salt and pepper and serve.

TYPHOID FEVER DIET MENU

RECEIPIE NAME: WHEAT PORRIDGE

Nutritive value / serving

Ingredienets	Quantity
Wheat	100 gms
Milk	100 ml
Honey	For taste

Calories	341 Kcal
Proteins	41.1 gms
Iron	11.5 mg

Method of preparation

Soak crushed or shredded wheat for ½ an hour. Cook on slow fire till water dries up. Add milk and honey.

HYPERTENSION DIET MENU

RECEIPIE NAME: GREEN GRAM IDLY

Ingredienets	Quantity
Green gram	150 gms
Boiled rice	50 gms

Nutritive value / serving

Calories	510 Kcal
Proteins	36 gms

Method of preparation

Soak green gram and rice for 1 hour. Then grind together for 15 – 20 minutes. Add salt as required. Keep this flour for ½ hour. Then make it as idly in idly pan. Can take with jaggery

PEPTIC ULCER DIET MENU

RECEIPIE NAME: CURD RICE

Nutritive value / serving

Ingredienets	Quantity
Maize noodles	10gm
Mustard	2 gm
Curry leaves	2 gm
Coriander leaves	2 gm
Curd	100ml
Oil	5 ml
Salt	To taste
Pepper	A little

Calories	92 Kcal
Proteins	4.24 gms
Iron	0.62 gms
B.carotene	251 µg

Method of preparation

Cook the noodles and keep it aside. Season with mustard, and curry leaves, mix with curd. Add the cooked noodles to the seasoned curd and mix well. Garnish with coriander leaves.

RENAL MENU

RECEIPIE NAME: BREAD SANDWHICH

Nutritive value / serving

Ingredienets	Quantity
Bread 5 slices	100 gms
Egg	1 (40 gms)
Butter	10 gms
Pepper	A little
Salt	A little

Calories	413 Kcal
Proteins	13.7 gms
Iron	3.7 gms
Calcium	160 mg
B.carotene	46 µg

Method of preparation:

Half boil the egg. Remove the shell. Blend the half cooked, semi solid egg to get smooth mixture. Add salt and pepper to this and mix well. Spread the buttered side of one slice. Place the buttered side of the second bread slice. Cut diagonally (Remove the crust of the bread).

DIABETIC DIET MENU

RECEIPIE NAME: WHEAT UPPUMA

Nutritive value / serving

Ingredienets	Quantity
Wheat rawa	75 grms
Onion	2 no
Green chillies	2 no
Mustard	½ tsp
Salt	To taste
Oil	2 tsps
Green coriander	A little
Curry leaves	1 spring
Water	225 ml

Calories	377 Kcal
Proteins	8.5 gms
Iron	1.5 gms
Calcium	187 mg
B.carotene	385 µg

Method of Preparation

Heat oil. Add chopped onion, green chillies, green coriander and curry leaves and fry. Add water and salt. When the water comes to boil add rawa and stir continuously. When the water evaporates remove from fire and serve.

DIET FOR FEVER

RECEIPIE NAME: WHEAT PORRIDGE

Nutritive value / serving

Ingredienets	Quantity
Wheat rawa	150 grms
Water	900ml
Salt	To taste

Calories	525 Kcal
Proteins	18 gms
Iron	16 gms
Calcium	30 gm
B.carotene	45 µg

Method of preparation

Boil water. When it comes to a boil add wheat rawa. When the water is reduced to half its volume, if the wheat is cooked add salt and remove from fire.

Practical 5

PERFORMING AN ANTENATAL ABDOMINAL EXAMINATION

Definition

Examination of a pregnant woman to determine the normalcy of fetal growth in relation to the gestational age, position of fetus in uterus and its relationship to the maternal pelvis.

Purposes

- To measure the SFH (Symphysis fundel height) and fundal height.
- To assess fetel size and growth.
- To determine abdominal muscle tone.
- To determine the fetal position, presentation, volume of liquid.
- To observe the signs of pregnancy.
- To detect any deviation from normal.
- To assess the fetel well being/
- To measure the abdominal girth.

Articles

- Fetoscope/stethoscope
- Measuring tape
- Tray contains / Sheet, Towel

Procedure

S No	Nursing action	Rational/scientific principle
1.	Explain the procedure and obtain her consent.	Reduces anxiety and promotes relaxation Avoids discomfort during palpation.
2.	Instruct her to empty the bladder	
3.	Position the women	
4	Expose her abdomen from below the breast to the symphysis pubis.	Visualization of the whole abdomen.
5.	Inspect abdomen for scars, linea nigra, size straie gravidarum, contourof abdomen, shape, state of umbilicus and skin condition.	It provides whether fetal growth corresponds to gestational period.
6.	Determine the fundal height using the ulnar side of the palm. Measure fundal height using the inch tape.	The number of centimeter measured should be approximately equal to the weeks of gestation after 24 weeks.
7.	Measure the abdominal girth by encircling the woman's abdomen with a tape measure at the level of umblicus. Abdominal palpation: Hands are warm before palpation.	Normally the measurement is 2 cm less or more than the weeks of gestation (eg) 32 cm or 36 cm in 34 weeks gestation Cold hands may cause muscle contraction and discomfort.

8	Fundal palpation Place the hands on the side of fundus and around the top of the uterus.	Round, hard regular mass – head . Irregular, less firm and not well defined – buttocks
9.	Lateral palpation: Place the hands on both sides of the uterus midway between symphysis pubis and the umbilicus.	A firm continues smooth curvature - it indicates back or spine of fetus. An irregular felt (nobby) parts – fetal extremities
10.	Pawlik's grip: Grasp the portion lower abdomen above the symphysis pubis between thumb and middle finger.	Fetal head above the brim – head is movable. Fetal head not movable – engaged head.
11.	Pelvic palpation:	To determine the level of engagement
12.	Auscultation: Place the fetoscope over the convex portion of the fetus close to the anterior uterine wall.	To hear the fetal heart sounds.
13.	Inform the mother about the findings and make her comfortable.	It promotes confidence.
14.	Replace the articles and wash hands.	Helps in further planning.
15.	Record the findings in the patient's chart (the time, findings and remarks.)	

MEASUREMENT OF UTERINE INVOLUTION

Definition: Involution

Assessing the state of the uterus in post-delivery period as it returns to pre-gravid state.

Purposes

- To identify abnormality
- To rule out infection.
- To estimate the rate of uterine involution take place.

Equipment Required

Screen, Inch tape, Clean gloves.

Procedure

Nursing action	Rational/ scientific principle
Explain the procedure to the patient.	Enhances cooperation Save time and energy.
Assemble necessary articles at bed side.	
Ensure the bladder is empty.	Full bladder may cause upward displacement of uterus
Drape the client exposing only lower abdomen.	provides comfort to the women
Locate fundus with palm of one hand.	Support and stabilize uterus.

Firmly press abdomen towards the spine & then slightly downward towards the perineum.	
Measure the number of finger breaths at which the fundus is felt.	Finger breath measurement correspond to the number of days after delivery. Day 1 : 10 – 12 cm Day 5 : not palpable
With gloved hand check perineal pad for type, amount color of lochia	
Provide perineal care and provide clean pad.	Maintains hygiene & prevents infection. Prevents spread of microorganism.
Replaces the articles & wash hands.	Documentation helps in obtaining a clear picture about involution of uterus.
Mark the fundal height in patients record.	

Practical 6

CHILD HEALTH NURSING

Anthropometric Measurement of Children

Anthropometrics are a set of non-invasive, quantitative body measurements used to assess growth, development, and health parameters. The word "anthropometry" is derived from the Greek word "anthropo" meaning "human" and the Greek word "metron" meaning "measure" (Ulajaszek, 1994). Anthropometric measurements, including length or height, weight, and head circumference, it helps health care providers determine if a child is growing properly and can indicate when the children health and well-being are at risk. Additionally, anthropometric measurements assist in selecting appropriate treatment options for children and adolescents.

The following measurement which is commonly used for assessment of children is discussed in this unit.

- Weight
- Recumbent length or height
- Head circumference
- Chest Circumference
- Mid arm Circumference

Purposes of Anthropometric measurements

- To assess the general health status of the child
- To assess the general nutritional status

Measurement of Weight

Quantitative expression of body mass, which indicates state of growth and health, is

measured in kilograms or pounds using adult or infant weighing scale.

Nursing Alert

Children less than 2 years of age – Weigh the child without clothes or a diaper using a digital infant scale. Position child in the center of the scale tray and read the measurement to the nearest 0.1 kg.

Children more than 2 years of age – Weigh the child on an electronic floor scale with increments less than or equal to 0.1 kg. Weigh young children without shoes and wearing underclothes only, unless privacy cannot be assured. For older children and young children when privacy is a concern, weigh the child wearing minimal inner clothing and without shoes. Request child or adolescent stand in the center platform of the scale and remain motionless until the measurement can be obtained. Measure the weight to the nearest 0.1 kg.

Purposes

- To check whether an infant/child has adequate weight for age
- To calculate nutritional requirements
- To calculate the quantity of intravenous fluids and medications
- To monitor the progress of weight gain or loss following treatment

Required articles

- Infant weighing scale-infantometer or Electronic floor scale
- Towel or disposable lining
- Duster
- Paper and pencil for calculation

Procedure

In case of a child less than 2 years of age including Infant

Keep the weighing scale on hard and firm surface.

1. Clean the weighing scale with duster
2. Spread a towel or disposable lining on the scale
3. Balance the scale to read zero
4. Place the weighing scale close to the wall to prevent the child from falling
5. Instruct the mother to stand beside the scale
6. Undress the child before weighing leaving diaper alone
7. Place the infant on the scale
8. Place the left hand over the infant without touching
9. Note the weight
10. Lift the infant from the scale and help the mother to dress the infant
11. Check and compare previous weight
12. Difference of more than 100 gms, needs to be clarified by rechecking the infants weight immediately. If the difference is still the same, it should be informed to the doctor concerned.
13. If the weight is in pounds and it must be converted to kilograms using conversion table.
14. Document the weight. **1 Kg = 2.2 lbs**

In case of a child more than two years of age

1. Place the Electronic floor scale on the firm surface
2. Provide privacy
3. Undress the child allowing only minimal clothing (inner clothing).
4. Remove shoes/slippers
5. Adjust the scale to read zero
6. Request child or adolescent stand in the center platform of the scale
7. Ask the child remain motionless until the measurement can be obtained.
8. Measure the weight to the nearest 0.1 kg.
9. Check and compare previous weight
10. If the weight is in pounds and it must be converted to kilograms using conversion table.

Measurement of Length/Height

A child's length is measured in lying down position (recumbent). Height is measured in standing upright position.

Nursing Alert

If a child is less than 2 years old, measure recumbent length.

If the child is aged 2 years or older and able to stand, measure standing height.

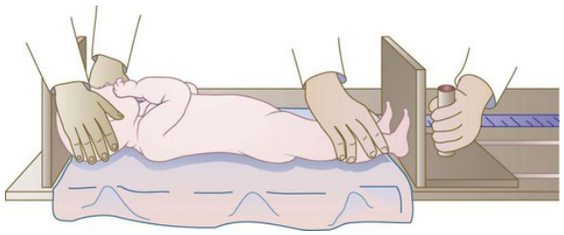
In general, standing height is about 0.7 cm less than recumbent length.

If a child less than 2 years old will not lie down for measurement of length, measure standing height and add 0.7 cm to convert it to length. If a child aged 2 years or older cannot stand, measure recumbent length and subtract 0.7 cm to convert it to height.

Equipments needed

- Length board or Infantometer
- Height scale or Stadiometer

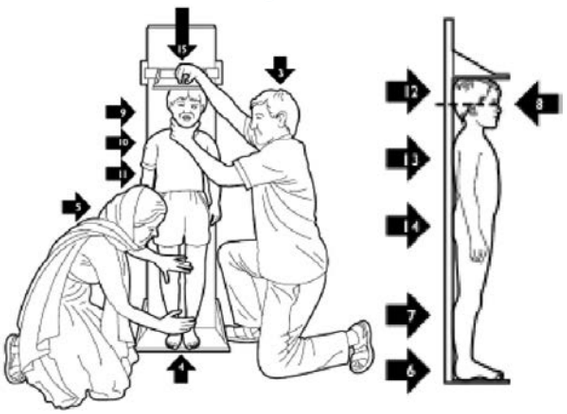
Measurement of recumbent length



1. Place a length board on a flat, stable surface such as a table.
2. Cover the length board with a thin cloth or soft paper for hygiene and for the baby's comfort.
3. Lay the child on his back with his head against the fixed headboard, compressing the hair.
4. Quickly position the head so that the child's eyes should be looking straight up.
5. Ask the mother or helper to move behind the headboard and hold the head in this position.
6. Stand on the side of the length board where you can see the measuring tape
7. Check that the child lies straight along the board and does not change position.
8. Shoulders should touch the board, and the spine should not be arched.
9. Hold down the child's legs with one hand and move the footboard with the other.
10. Apply gentle pressure to the knees to straighten the legs as far as they can go without causing injury.
11. If a child is extremely agitated and both legs cannot be held in position, measure with one leg in position.

12. While holding the knees, pull the footboard against the child's feet. The soles of the feet should be flat against the footboard, toes pointing upwards.
13. Read the measurement and record the child's length in centimetres to the last completed 0.1 cm. This is the last line that you can actually see. (0.1 cm = 1 mm)
14. Remember: If the child whose length you measured is 2 years old or more, subtract 0.7 cm from the length and record the result as height.

Measurement of Height



1. Mount a stadiometer at a right angle between a level floor and against a straight, vertical surface such as a wall or pillar.
2. Ensure that the height board is on level ground.
3. Remove shoes, socks and hair ornaments from the child.
4. Help the child to stand on the baseboard with feet slightly apart. The back of the head, shoulder blades, buttocks, calves, and heels should touch the vertical board.
5. The trunk should be balanced over the waist, i.e., not leaning back or forward.
6. Ask the mother/helper to hold the child's knees and ankles to help keep the legs straight and feet flat, with heels and calves touching the vertical board.
7. Position the child's head by holding your thumb and forefinger over the child's chin.
8. If necessary, push gently on the tummy to help the child stand to full height.
9. Still keeping the head in position, use your other hand to pull down the headboard to rest firmly on top of the head and compress the hair.
10. Read the measurement and record the child's height in centimetres to the last completed 0.1 cm This is the last line that you can actually see. (0.1 cm = 1 mm)
11. Remember: If the child whose height you measured is less than 2 years old, add 0.7 cm to the height.

Articles required for measuring circumference

- Inch tape / measuring tape
- Marker pen
- Paper for recording.

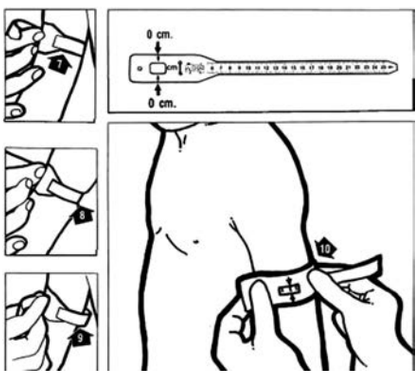
Measurement of Head Circumference

1. Place light drape or paper on flat surface
2. Place infant/child in supine position or seated on paper drape if the child could sit.
3. Use a measuring tape that cannot be stretched
4. Place tape measure over the most prominent point of the occiput, around the head just above the eyebrows and pinna. This point should be taken as head circumference.
5. Take the measurement to the nearest 0.1 cm

Measurement of Chest Circumference

Place tape measure underneath the back of baby/child and bring it to front measured at nipple line gives the chest circumference.

Measurement of Mid-Arm Circumference



1. Instruct the child to stand with their back to the measurer and their arms hanging by their sides.
2. Palpate for the acromion process and mark.
3. With the child's arm flexed at 90°, palpate for the olecranon (tip of the elbow) and mark
4. Using a tape measure, measure the distance between the mark at the acromion and the mark at the olecranon. Whilst still holding the tape in place, make a short horizontal line at the mid-point. This line marks the middle of the upper-arm (i.e. if the tape measure shows that the measured distance between the acromion and olecranon is 32.6cm then the mid-point mark should be drawn at16.3cm).
5. This marks the level at which the circumference will be measured.
6. Ask the child to relax and to keep their arm hanging by their side. This is important as a very different reading may be obtained if the arm is not fully relaxed.
7. Align the tape around the upper arm such that the mid-point mark is situated between the two parts of the tape. Ensure the tape is horizontal. Make sure the tape is not pulled too tight. It should rest on the skin but not indent it.
8. Make measurement of mid upper arm circumference and record it.

Success story of a baby born preterm

Baby Vinay (name changed) was born on October 23, 2014 at 4.24 pm by emergency c-section, weighing 1.8 kg and 36.5 cm long at 30 weeks of gestation. Since he was a preterm as well as a low birth weight baby, he was kept in Neonatal Intensive Care Unit for further management. He was connected to a ventilator to maintain his breathing and oxygenation. He had a very bad case of jaundice and was on phototherapy. He could not suck breast for milk. So he was put on Ryle's tube and he was fed with expressed breast milk. His mother pumped breast milk for Baby Vinay. It took two weeks to hold the baby, cuddle and gently caress the child. Meanwhile, he got treated for his infections. It was a hard and long journey for Vinay to come out of NICU. Now he has grown to be a 4 years old healthy baby without any complications. He is able to perform all the activities as expected from a 4 year old. He is making his mommy and daddy very proud!

Practical 7

HOME NURSING

Home is always associated with comfort, security and positive feeling.

Learning Objectives

- On completion of this chapter the learner will be able to
- List out the purpose the health assessment
- Describe the technique followed during physical assessment

Introduction

A home is where you feel cared for and comfortable. Elderly persons choose to be at home than cared in the hospitals during acute and chronic illnesses. Home nursing services comprises a wide range of health care which can be handled easily at home. The services provided are based on the needs of the individual and family. Home care is planned, coordinated and made available by providers organized for the delivery of home care. Recently there has been a shift of community based care. The nurse is a valuable team member home health care service.

Definition

Home care (Domiciliary care)

1. Home care is the supportive health care provided in the home.
2. Home Care may be provided by licensed health care professionals who provide medical treatment or by professional caregivers who provide daily assistance to ensure the activities of daily living are met.

Purposes of Home health care

1. Promotion, maintenance and restoration of health
2. Minimizing the effects of illness and disability

3. Prevention of disease
4. Treatment of illness
5. Relief of suffering and promoting the comfort of the client
6. Support and assurance to patient and family

Principles of Home care

1. Establish good interpersonal relationship with family and others.
2. Collect information regarding the family size, education, occupation, religion, customs, and traditions.
3. Identify the health problem and set Priorities to deal.
4. Proper Health Education
5. Help the family members to plan and carry out the needed action.
6. Help the family to meet their needs and to improve the health, nutrition and the welfare of the family.
7. Coordinate with Health Care team.

Types of Home Care

1. Home based Primary care
2. Transitional care
3. Population focused Home care
4. Hospice care

Persons Who Provide Home care

a) Registered Nurse
b) Physiotherapist
c) Occupational Therapist

Conditions which can be dealt in the home.

- Wound Care - Pressure sores or Surgical wound
- Care of the old age and handicapped persons
- Patient and caregiver education (Health Education)
- Intravenous Nutrition therapy
- Rehabilitation therapy
- Vaccination against infectious diseases such as H1N1, Typhoid and Hepatitis
- Post operative care - pain, feeding, respiratory and fluid management
- Urinary Catheterization Care
- Oxygen Administration
- Injections or IV infusion
- Physiotherapy

Advantages of home health care

1. Cheaper
2. Effective
3. Personalized nursing care at home setting
4. Convenient
5. Helps to recover faster
6. Gives an older adult a some of independence by offering an important measure of control over day to day events.
7. Home care improves quality of care provided and increased patient satisfaction.

Role of a Nurse in Home care

1. Monitor vital signs
2. Regular monitoring of the treatment course.
3. Pain management and relief from discomfort.
4. Provision of safety measures at home.
5. Educate the patient and family members regarding self care.
6. Coordinate and communicate with the doctor regarding the course of treatment.

1. Care of the sick in the Home

The health personal may be called to see the person who is sick in the home and realizes the individual needs of the family members and take care of them according to the needs.

Assess the Patient carefully in good light

- General appearance
- Colour of the skin, eyes or any other signs of illness

- Assess the condition of ears, mouth, tongue, throat and tonsils
- Observe for any other gland enlargement and discomfort in abdomen
- Observe for any wound, swelling, scars, patches, sores, rashes or loss of sensation and behaviour
- If it is a child, observe road to health card and immunization status

Role of Nurse

- Give treatment depending upon the nursing diagnosis as per the standing order.
- Measures to relieve symptoms such cold compress, hot water bag, eye care, etc.,

Refer if any sign/symptom which cannot be managed at home. **BAG TECHNIQUE**

The Community health bag is designed to carry equipment and material needed during a visit to the home, school or factory. Equipment and material are needed to make tests and to demonstrate patient care such as eye irrigation, application of ointments and medications. (TNAI)

It contains basic medications and articles which are necessary for giving care.

Objective

The objective of using community health bag in a systematic method is "to be able to carry out nursing procedures in the family with improvised equipments articles available at home.

Purposes

1. To prevent carrying of infection from one patient to another and from one place to another by keeping bag and its contents as clean as possible.
2. To demonstrate the principles of cleanliness to patients and family members by using the bag in orderly way.
3. To carry out selected procedure, demonstrations, teaching and follow up services for patients and family members

Principles

1. The use of the bag technique should minimize prevent the spread of infection from individuals to families, hence, to the community
2. Bag technique should save time and effort
3. Bag technique should show the effectiveness of total care given to an individual or family.

The Bag

1. The bag should be made of canvas, leather or light metal.
2. It should be such that it can be carried by the hand or on the shoulder.
3. The bag should have outside pockets for keeping a not-book, tape measure, newspaper or plastic sheet, towel, soap in a soap dish and nail brush.

USES

1. Provide antenatal, intra natal and postnatal care to mother and child.
2. Perform certain diagnostic procedures such as Hb testing, urine testing for early detection of high risk cases and provide timely treatment.
3. Demonstrate certain Procedures to family members or community such as preparing oral dehydration solution (ORS),baby bath, application of benzyl benzoate in cases of scabies.
4. Provide emergency and first aid services (+) in case of accidents and minor ailments. Provide and demonstrate care in case of communicable diseases such as chickenpox.

5. Provide follow up services in chronic illness such as diabetes, paraplegia or amputation. Access the need of individual and families and give health education in care of malnutrition, environmental hazards, home accidents and immunization etc.

Outer pocket: is used for keeping a dairy to maintain records, clean paper bags and a square piece of newspaper or plastic sheet to keep the bag on. The other one is used for keeping things for hand washing. Internal Compartments - These are used for keeping solutions and medicines for internal and external use, simple instruments for dressing, articles for certain procedures such as temperature taking, urine testing, antenatal examination and few additional things for health teaching

Procedure

1. Spread the news paper on a flat surface and place the bag in a clean area and place the bag on it
2. Wash the hands with soap and water
3. Take out only the needed things to carry out the procedure.
4. Record all relevant findings about the client and members of the family.
5. Take note of environmental factors which affect the clients/family health.
6. Assess effectiveness of nursing care provided.
7. Clean the bag daily, protect from excessive heat or rain to reserve it in a good condition.
8. Replace the drugs, dressing and linen daily in the bag. Empty all the contents, wash the bag with soap and water once in a week or more frequently depending on how much it has been used and dry it the sun.
9. Wash the articles such as instruments, linen and utensils with soap and water and boil them.
10. Replace cotton or plastic bags containing swabs and dressing with sterile one.
11. Check gloves, catheters, thermometer and glass articles, replace if spoilt or broken.
12. Repack the bag in an orderly way.
13. Keep the bag ready for next visit with all equipment.

Topics for Health Education

1. Cause of illness
2. Cleanliness and disinfection
3. Good ventilation
4. Rest and sleep
5. Proper Diet
6. Nursing Care such as change of positions to prevent bedsore.

Community health nurse is responsible to provide primary health care in the community

Treatment of minor ailments and emergencies is an important component of community health nursing. Nurse should be able to identify the signs and symptoms of a patient and treat them according to the standing orders.

Standing orders are the specific instructions which should be followed during the non availability of doctors, nurses only to supply and/or administer prescribed medcines and some controlled drugs It should be followed in temporary basics / or in emergency situation.

General standing orders. Eg – in case of diarrhea – ORS PACKET

General Minor Ailments

- Injuries and Falls
- Dog Bite
- Burns
- High Fever
- Heat Stroke
- Diarrhea
- Fainting Etc

Assessment of Minor Ailments

1. Collect history
2. Perform quick physical examination
3. Find out the cause
4. Find out the diagnosis and planning for care
5. Provide treatment and nursing care
6. Evaluate the care and condition of the patient

- If the outcome is successful ,plan for follow up
- If condition does not improve or serious signs – refer to hospital

FEVER

S.No	Procedure Steps	Action
1.	Monitor vital signs	
2.	Collect all information about other symptoms accompanying the fever – head ache , nausea , vomiting, shivering cold running nose, allergy , skin infection, jaundice, fits, cough	
3.	Provide rest and light meal to the patient	
4.	Prepare blood slide to examine malaria parasite	
5.	Give paracetamol tablet as per order	
6.	Give lots of liquids to the patient	
7.	If the fever is more than 102 deg F – tepid sponge	
8.	Monitor the pattern of fever and wait for two days	
9.	If the fever is accompanying with rashes- isolate the patient	
10.	In case of delirium, convulsions, unconsciousness and hyperpyrexia accompanying the fever refer the patient to the hospital	

S.No		Action
1. DIARRHOEA		
	Monitor the symptoms of dehydration	
	If the dehydration is severe or the patient is in the state of shock – refer him to hospital	
	Provide ORS to the patient	
	Rice water, coconut water, lemon juice, light tea, banana should be given to the patient	
	If there is epidemic of diarrhea sample should be send for stool test	
	If cholera is prevalent immunization should be taken	
	Food and water should be protected	
	Notification should be done	
2. INJURIES AND FRACTURES–SKELETAL		
	Clean the wound with soap and water	
	Apply the spirit around the place of wound	
	Apply Betadine solution and bandage the wound with sterile solution	
	Monitor the condition of the patient	
	Treat the patient for shock	
	Immobilize the fractured area	
	Give analgesic and TT	
	In case the wound is large and need suture , or caused by bullet or weapon refer to hospital	

Standing orders for MCH CARE		
	Give tablets to check vomiting and nausea in early stages of pregnancy	
	In case of toxemia of pregnancy , advice her restricted salt diet and complete rest	
	Send to hospital if there is edema/ APH / PPH	
	If the mother develop fever after delivery try to ascertain the cause	
	Keep newborn in proper warmth	
	Initiate breast feeding	
	Convulsions in children	
	Lie down the child safely on a bed	
	Loosen the clothes from the chest and let the fresh air pcome	
	Clean the secretions from his mouth and let the respiratory tract function properly	
	In case of fever give cold sponge	
	Evaluate the cause	
	Hemorrhage	
	Lie down the person on back	
	Take BP	
	Press a pad on the site of bleeding	
	Give him liquids	
	Try to find out the cause of bleeding	
	Monitor the state of shock and in case of bleeding or condition of shock getting out of control send the patient for further treatment	
	Unconsciousness	
	Lie down the person in a well ventilated area	
	Remove dentures	
	Clean the secretions from mouth	
	Loosen the clothes from neck, chest and waist	
	Provide artificial respiration in case of blocked breathing	
	Try to find out the reason	

Role Of Community Health Nursing

1. History collection / assessment
2. Finding out the actions/ complications and any specifications
3. Vitals monitoring
4. Identifying the needs and problems
5. Nursing services under standing orders
6. Implementing referral system
7. Informing authorities – outbreak of diseases
8. Keeping medicine kit ready
9. Representing nurses view point in meting
10. Being careful about limits
11. Ensure safe and healthy environment

Wound Care

Wound

A wound is any break in the skin or deep tissue. Normally the skin heals quickly on its own. Wounds that don't heal easily are called chronic wounds. They require special care to heal.

Care of the Feet for Diabetic patients at Home

People who have Diabetes are vulnerable to nerve and vascular damage that leads to loss of sensation and poor circulation which results in poor wound healing mostly feet is

affected. Foot care aims in reducing damage from occurring to the feet and regularly checking feet for any signs of damage.

Purposes

1. To maintain skin integrity
2. To provide sense of comfort and well being
3. To prevent foot ulcer
4. To identify callus, corns and circulation problem and treat them early
5. To promote self care
6. Inspect feet daily.

7. Bathe feet in lukewarm, never hot, water.

8. Be gentle when washing feet. ...
9. Moisturize your feet but not between your toes.
10. Cut nails carefully.
11. Never treat corns or calluses yourself.
12. Wear clean, dry socks.

Regularly examine the feet for signs of damage, especially one who is suffering from poor circulation and numbness.

Signs of foot damage:

- Cuts
- Bruising
- Swelling
- Grazes
- Sores
- Changes in colour
- Ulceration
- Hard skin
- Any cracking from dry skin.

Articles required

1. Mackintosh
2. wash cloth
3. Soft towel
4. Wash Basin
5. Warm water
6. Soap
7. Lotion
8. Disposable gloves
9. Nail clippers

S.No	Procedure	Action
1.	Wash hands	To prevent infection
2.	Provide a comfortable position to the patient	To promote comfort

3.	Fill the 3/4th of the basin with warm water 100*F-104*F. Place the Rubber Mackintosh under the basin and soak the client's feet in the basin	Warm water softens nails and improves circulation. Make sure that the water is not too hot because diabetic clients will not have sensation in the feet.
4.	Allow to soak feet for 20 minitues	Softening allows easy removal of dead epithelial tissue and prevents the nails from crackling.
5.	Apply soap and wash thoroughly	Soap application and washing prevents dirt from the feet
6.	Dry the feet thoroughly with soft towel specially between the toes	Soft towel is good for easy absorption and drying in between the toes. It helps to prevent the bacterial growth.
7.	Apply water soluble lotion	To prevent skin break due to the dryness
8.	Replace the articles	
9.	Record the procedure	
10.	Educate and ask the patient to care the feet daily	To prevent complications
11.	Explain the dangers of bare foot	Patient may not be aware of the injury due to the Loss of sensation
12.	Educate the clients to follow dietary pattern To avoid smoking and drinking alcohol	To prevent further complications

Foot examinations

Regular check-up from a health professional at least once each year. Foot must be examined for the following

- Signs of neuropathy or development of neuropathy
- Blood circulation
- Any signs of damage

Management of Diabetes will help to prevent from foot complications

- An appropriate treatment regime
- Healthy and balanced diet
- Healthy life style, and regular exercise

What is a diabetic foot ulcer?

A diabetic foot ulcer is an open wound or sore, commonly located on the bottom of the foot, in a patient with diabetes. It may be due Nerve damage and Blood circulation problems.

Wound care

Definition

Wound care refers to specific types of treatment for pressure sores , skin ulcers and other wounds that break the skin. Proper wound care is important to prevent infection.

Dressing is used by a doctor, caregiver and/or patient to help a wound heal and prevent further issues like infection or complications. Dressings are designed to be in direct contact with the wound, which is different from a bandage that holds the dressing in place.

Types of Dressing (7 types)

1. Hydrogel
2. Colloid
3. Hydrocolloid
4. Alginate
5. Foams
6. Clothe dressing
7. Transparent dressing

Purposes of wound dressing

1. Protect the wound from infectious microorganisms
2. Promote Healing by absorbing drainage
3. Promote homeostasis
4. Protect the wound site with dressing

Articles required for wound care

S.No	Articles	Purpsose
A sterile Tray containing (Dressing pack)		
1.	Artery forceps - 1	To clean the wound
2.	Dissecting forceps -2	
3.	Scissors - 1	For debridement of the wound
4.	A small bowl	To keep the solution for cleaning the wound
5.	Sterile cotton balls	To clean and dress the wound
6.	Sterile Gauze Pieces	
7.	Sterile Pads	
8.	Sterile Gloves	To protect and prevent infection
9.	Sterile Towel	To create a sterile area around the wound
10.	Sterile Bandages	
A unsterile Tray contains		
1.	Cleaning solutions (Betadine, Hydrogen peroxide, Normal saline)	To clean the wound
2.	Antiseptic ointment (Povidone)	To apply on the wound
3.	Bandages, Adhesive Plaster	To fix the dressing in its site.
4.	Transfer forceps	To transfer the sterile articles and dressing
5.	Vaseline gauze (in a sterile box)	To prevent the dressing sticking on the wound
5	Mask, Apron	To protect and prevent the transmission of infection
6.	Sterile swab sticks in a container	To apply medications if necessary
7.	Kidney tray	To discard the waste
9.	Mackintosh and towel	To protect the patient and bed

Procedure

S.No	Action	Rationale
1.	Tie the mask	To prevent infection
	Wash hands with soap and water or an alcohol-based hand rub	To prevent cross infection
2.	Use sterile gown, gloves, etc., as required	To protect from contamination.

3.	Gently and slowly remove the tape or dressing.	
4	Lift the edges of the dressing toward the center of the wound, then gently lift it from the wound.	
5.	If the dressing sticks to the wound, soak it with saline solution	To help loosen it.
6.	Carefully discard the old dressing into a plastic Dust bin. (BMW).	
7.	Remove the gloves and wash your hands again	To prevent infection
8,	Open the sterile dressing pack and spread the sterile towel around the wound	To create a sterile area around the wound
9.	Note the type and amount of drainage present	
10.	Ask the second person to pour sterile solution in to the sterile bowl	To maintain sterilization
11.	Clean the wound from centre to the periphery and discard the gauze after each stroke. After thoroughly cleaning of the wound, dry the wound using the same technique	Cleaning should be done from the cleanest area to the less clean area To keep the wound as dry as possible
12	Apply the medication as ordered	To promote wound healing
13	Apply the sterile gauze pieces and cotton pads	Application of cotton on the wound may stick on it.
14	Secure the dressing with adhesive plaster	If it is not fixed properly it will fall down
15	Remove the gloves and discard it in to the waste bin	Proper disposal is important to prevent the spread of infection

After care

Help the patient to dress up and take a comfortable position in the bed. If the bed is soiled during dressing, change the bed.

1. Replace the linen.
2. Replace the articles in its place.
3. Remove the mackintosh and towel.
4. Wash hands and record the procedure
5. Ensure the cleanliness of the patient and his surroundings.

Preparation of ORS

Preparation of ORS treats dehydration caused by severe diarrhea through the replacement of fluids. Sugar, salt and water - this simple mixture saves the life. Easy to prepare and administer in the home. ORS empowers parents with the first line of treatment of children suffering from diarrhea. ORS pocket is readily available which can be prepared by mixing with clean water. Put the contents of the ORS pocket in a clean container. Check the pocket and add the correct amount of water. When the ORS pocket is not available, we should prepare ORS with available things at home.

Diarrhea usually cures itself in 3 or 4 days with rehydration (Drinking a lot of fluids). Loss of fluid and nutrients from the body which can cause dehydration and malnutrition.

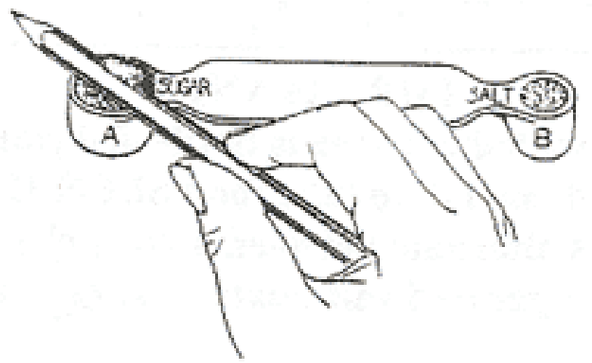
The best treatment for diarrhea is to

- Drink lots of liquids and Oral Rehydration solution. It is available in pockets.

Oral Rehydration Solution

The spoon is used for measuring sugar and-salt has a large end (A) is for sugar. The small end (B) is for salt.

Using the spoon



Spoon for ORS Preparation at Home

Preparation of ORS at HOme

1. Make the sugar and salt flat.
2. Put the sugar into the glass of water with the salt.
3. Mix the water (250ml), sugar and salt.
4. Taste before drinking. If it is very salty throw it away and start making the drink again. It should not be more salty than tears.
5. **Important** Too much salt is dangerous. Use only small spoon of salt in one glass of water.
6. Drink ORS slowly.
7. Take about 10 minutes to drink it.
8. Men and women must drink 2 glasses after every stool. Children must drink 1 glass after every diarrhea stool.

Fluid Replacement amount

Vomiting

After drinking, the child or adult may vomit the sugar, salt and water. Do not worry. Continue giving the drink. Give a little more to replace what has been vomited, and give it very slowly without forcing. Encourage the child to drink a diluted cereal as well as the sugar and salt mixture. Eating or drinking a cereal food (such as rice or maize) may reduce stool volume by half.

When to seek help when the person with diarrhea:

1. Very small baby;
2. Green colour vomit;
3. becomes more ill;
4. does not answer clearly when spoken to.
5. Continue using the salt, sugar and water until help comes.

Nursing care at Home for the follow up care

Home care is done by the health care provider for the following various disease conditions and surgeries.

They are

a) Pneumonia
b) Laryngectomy
c) Pulmonary tuberculosis
d) Cardiac surgery
e) Bronchial asthma
f) Mastectomy
g) Coronary artery disease
h) Client with casts
i) Diabetes mellitus
j) Ostomy such as gastrostomy
k) Hypertension
l) Ortho surgeries
m) Anemia
n) Arthritis
o) Blindness
p) Cancer
q) Cerebro vascular disease

r) Mentally challenged conditions
s) Epilepsy / fits

The role of nurses at home in generally on the aspects of

a) Activity / rest
b) Circulation
c) Elimination
d) Food and fluids
e) Hygiene
f) Monitoring / surveillance
g) Safety
h) Ventilation

Activity and rest: In activity and rest the nurses role is on

- Active and passive range of motion exercises
- Body mechanics
- Low back pain exercises
- Post Mastectomy exercises

Active and passive range of motion exercises

They are those that take the body joints through their extent of movement. Their purpose is to maintain joint function and muscle tone. Ranges of motion exercise are categorized according to the independence of performance.

Active range of motion exercise:

Those performed independently by client.

Assisted Range of motion exercise:

Those the client can partially perform but requires some assistance for the whole performance.

Passive range of motion exercise:

Those exercise the client is unable to perform and that requires total assistance from another person.

The nurse role is to teach the client and family to

a) Perform each exercise accurately
b) Perform the exercise consistently
c) Integrate the exercise in other daily activities such as bathing. Watching television, or playing games.

Elimination:

The aspects of eliminative home nursing care are

a) Providing assistive devices
b) Bladder training program (incontinence)
c) Bowel training
d) Enema administration
e) Care of indwelling catheter
f) Ostomy care
g) Supra pubic catheter care

Providing assistive devices for elimination: The bedpan and urinals are devices used to collect faeces and urine. They are used in home primarily for clients who are unable to ambulate to toileting facilities. The placement of bed pan, urinal and evaluate the body alignment of the client should be observed. The sacral area, perineal area and rectal area should be taken care.Bladder training programme (incontinence). The term urinary incontinence refers to inability of external urethral. Sphincter to control the urinary flow from the bladder, A bladder training program consisting of exercise of sphincter to reduce the frequency of urinary incontinence. The program is lengthy one. Motivation, persistence and family support are essential to the success of the program.

e) Hygiene:

The home care aspects in hygiene are:

a) Baths
b) Douche
c) Eye care
d) Ear care
e) Foot care
f) Oral care

Bathe: Bathing is used to cleanse the body of dirt and debris that accumulates due to direct contact and elimination of waste through the skin. Complete bed bath is given when the client is completely bathed in the bed.

Foot Care: The feet of ill bed ridden clients are easily susceptible to infection and other problems because the feet are far away from the heart than any other body part, they are most compromised by vascular conditions that interfere with normal circulation.

Conditions that generally affect bed ridden client include

1. Foot drop is a deformity in which the foot is extended abnormally at the ankle in the direction of the sole of the foot.
2. Intermittent claudications is a severe pain in the calf muscles caused by inadequate circulation. It usually occurs during walking, but subsides with rest.
3. Ulcers and gangrene are common side effects of diabetes. They occur because of inadequate circulation to the foot which retards natural healing process.

Oral Care: Cleansing of the mouth , teeth and gums is important to maintain the client's sense of well being as well as to prevent tooth decay and infection. Dental caries are the areas of localized destruction of tooth tissue by bacterial action. Caries are actually caused by acid production by bacteria which forms colony on the tooth surface.

f) Monitoring and surveillance:

The aspects of home health care which comes under monitoring and surveillance are

a) Neurological signs evaluation.
b) Urine glucose testing.
c) Vital signs.

Neurological Signs Evaluation: Neurological evaluation of the client can be obtained by objective and subjective data that are gathered through series of tests and evaluation techniques. The neurological status evaluation may be indicative of deteriorating condition or assessment of cognitive state. This is particularly important in home when traumatic injury is evaluated on when progressive neurological involvement may be side effect of medication therapy.

Urine glucose testing: Urine glucose testing is used to assess the status of person's diabetic condition. Diabetic results from body's inability to utilize food efficiently. When food is digested, it is broken into glucose, which is stored in liver and muscle tissue in the form of glycogen. Insulin facilitates the storage process. Diabetics do not produce sufficient insulin: therefore blood glucose levels rise to abnormally high levels. The normal fasting level of blood glucose is approximately 60 mg/dl to 115 mg/dl. Glucose does not appear in urine until the blood level reaches 180 mg/dl. Therefore, urine glucose level may be interpreted as reflection of actual blood glucose level.

Vital signs: Measurement of vital signs is done. To assess the physiological status of the client in relation to those vital canters of the body those are necessary to sustain life. The vital sign indicators are temperature, pulse, respiration and blood pressure. The temperature may be taken by oral, rectal or axillary route. The pulse may be measured by palpation, on auscultation of chest area; blood pressure is measured by means of sphygmomanometer.

Hot and cold applications: Hot and cold applications are applied to the clients in order to change the tissue temperature locally on systematically for a therapeutic purpose. Insulin injection: Since the major diabetes is thought to be the lack of inadequate use of insulin diabetic therapy often includes the use of insulin, in addition to dietary and exercise control. If the diabetic has little or no insulin production, capability in the pancreas, insulin is administered. The client family will be primarily responsible for performing the procedure on a daily basis. The injection should be performed with aseptic technique.

Intravenous therapy: Because of recent changes in health care industry encouraging early discharge from hospital, increasing

number of clients requires (IV) therapy at home. Home IV therapy can provide additional fluids and electrolytes selected, nutritional supplements, on a route for medications. Insertion of IV cannula and initiation of the infusion will usually rest with the how health nurse.

Oral administration of medications: Oral administration of medications is the least expensive and the most convenient method for clients in the home physiologically oral route is safest one. Drugs are given sublingually. Usually are intended to be absorbed in to blood vessels of the underside of the tongue. Those given basically act locally on the mucous membrane or systematically in the saliva.

Traction: Traction is applied for the purposes of immobilization and the application of force to a body part usually an extremity. Traction is used to prevent movement of a body part to decrease muscular strain, to full fractured or displaced bone in to connect alignment or prevent skeletal deformities.

Wound care: A wound is a break in the integrity of body tissue. It may be internal or external.

Wounds may also be contaminated or infected. The goal of wound care is to prevent infection and hasten healing

Ventilation: The home care of the ventilation aspects are

a) Oxygen administration
b) Suctioning

Oxygen administration: Oxygen is commonly administered in the home who require supplemental oxygen for respiratory problem such as chronic obstructive pulmonary disease. The equipment should be maintained check nasal mucosa for irritation of using nasal prongs.

Suctioning: Surgical procedures, pain and chronic medical problems such as muscular dystrophy reduce the clients' ability to cough effectively. A laryngectomy on tracheostomy will facilitate suctioning the trachea but more potential for respiratory infection. Endo-tracheal suctioning may be requiring if the person cannot mobilize suctions and does not have artificial airway in place. The technique requires more skill and usually performed by home health nurse.

Counseling services in home health care

The counseling program provides intensive. Counseling services to families in the comfort of their own home. The families typically have children between the ages of 5 and 21 who are showing behavioral on emotional concerns. The services recognize each family individual strengths and work with partners to achieve goals. Commonly addressed Issues include

a) Anger management
b) Anxiety and depression
c) Alcohol and drug abuse
d) Child discipline techniques
e) Couples conflicts
f) Different behavior such as violence
g) Grief and loss
h) Parent / child conflicts

Counseling sessions may include whatever combination of members the family feels is important to achieve their goals. The length of the treatment depends on family's unique needs.

Rehabilitation services in home nursing

Community based rehabilitation is a strategy for enhancing the quality of life of the disabled people by improving the service delivery system by providing equitable opportunities and by promoting and protecting their human rights.

Definition: Community based rehabilitation is a strategy within community developmentfor the rehabilitation, equalization of opportunities, and social inclusion of all people with disabilities.

Objectives of community based rehabilitation

- To identify all persons with disability in the community.
- To provide required rehabilitation service to disabled people.
- To create awareness about all issues related to disability.
- To priorities service for disabled person.

Characteristics of rehabilitation

a) Reduction of disability and handicap.
b) Empowerment: The individual becoming more in control of himself and his health and life through mobilization of appropriate resources to enable his needs to be met.
c) Independence Problem – solving: Rehabilitation should aim to facilitate and develop further such as individuals problem solving skills, providing new knowledge and training for life, to enable effective decision making.
d) Client centered rehabilitation: To the notion of client centered.
e) The holistic approach**:** The concept of holism suggests total well being.

Principles of community based rehabilitation

1. Utilization of available resources in the community.
2. Transfer of knowledge about disabilities and skills in rehabilitation of people withdisabilities, families and communities.
3. Community involvement in planning, decision making and evaluation.
4. Utilization and strengthening of referral services at the district and national levels.
5. Utilization of co-ordinate approach and education, health and social systems.

Advantage of community based rehabilitations

- Home based
- Less expensive
- Existing community response and resources.
- Focus on quality rather than quantity
- Multiple approaches based on community needs.

Planning for community participation in community based rehabilitation

1. Community participation requires an understanding of the attitude of people in the community, level of participation in the program and the expected level of participation to be achieved in the future.
2. Community based rehabilitation program needs to find ways to motivate the marginalized groups of disabled persons, their families and community to follow a participating mode of development in which the local community.
3. The community should support the basic necessities of life and help to families who carry out rehabilitation at home.
4. Disabled community members and their families should be involved in all discussions and decision regarding services and opportunities provided for them.

Practical 8

MENTAL STATUS EXAMINATION

Introduction

The mental status examination is the part of the clinical assessment that describes the sum total of examiner's observation and impressing of the psychiatric patient at the time of interview, whereas the patient's history remains stable. The patient's mental status can change from day to day or hour to hour. Even when a patient is mute or refuses to answer questions, the clinician can obtain a wealth information through careful observation.

MSE is developed by philosopher and psychiatrist Karl Jaspers.

Definition

The mental status examination (MSE) is a cross-sectional, systemic documentation of the quality of mental functioning at the time of interview.

The mental status examination is the part of the clinical assessment that describes the sum total of the examiner's observations and impressions of the psychiatric patient at the time of the interview.

Purpose

1. To make an accurate diagnosis and formulation
2. To plan for the treatment
3. To obtain evidence of symptoms and signs of mental disorders, including danger to self and others that are present at the time of interview

Precautions

The MSE cannot be given to patient

1. Who cannot pay attention to the examiner for example coma or unconscious
2. Completely unable to speak (aphasic)
3. Not fluent in the language of the examiner

Description

General appearance and Behavior

The examiner notes the person's age, sex and overall appearance. These features are significant because poor personal hygiene or grooming may reflect a loss of interest in self care or physical inability to bathe or dress oneself.

Appearance	:	Apparent to age/ older than age
Grooming	:	Normally/abnormally dressed
Cleanliness	:	Adequate / inadequate
Mode of entry	:	Willingly came / brought by force
Rapport	:	Spontaneous / not established
Facial expression	:	Happy / Sad / Anger / Cannot be described
Posture	:	Relaxed / Changing posture

Psychomotor Activity :

- Motor activity Increased or decreased
- Abnormal involuntary movements like tics, tremors, akathisia, and restlessness
- Compulsive acts, rituals or habits (e.g.; nail biting)
- Checking rituals: in which the patient may repeatedly check the front door is closed or electrical switches are in the 'off' position.
- Cleaning rituals
- Dressing rituals
- Trichotillomania; a compulsion to pull out ones hair

Speach

Initiation : Spontaneous/ speaks when spoken to

Rate and quantity : Normal / absent (mutism)/ Increased / Decreased

Flow and rhythm speech : Rapid / Slow / Monotonous / Loud /

Relevance : Relevant / Irrelevant

Mood and Affect

Mood

Mood is defined as a emotion that colors the person's underlying perception of the world.

Observe the patients' mood during the interview and also ask how they are Feeling?

Affect

Affect can be defined as the patient's present emotional outward responsiveness; inferred from the patient's facial expression, including the amount and the range of expressive behavior.

1) Subjective data : how the patient reports prevailing mood

2) Objective data : your impression

(Elevated / Euthymia / Anxious / Irritable)

Thought Content

Thought can be divided into stream, form and content.

Stream : Normal / Thought block / Flight of ideas

Form : Word salad / Circumstantiality / Neologism

Content

Delusion : present / Absent

Phobia : Present / Absent

Preoccupation : Present / Absent

Perception

Hallucinations : present / Absent

Illusions : Present / Absent

COGNITIVE FUNCTION

Consciousness : Conscious / Alert / Drowsy / Coma

Attention : Normally aroused / Aroused with difficulty

(Attention is assessed by calculations or by asking the patient to spell the word or others forward and backward)

Concentration : Normal / Distracted

(Names of months / Names of the week days in backward)

Orientation : Oriented / not oriented

(Time / Place / Person)

Memory : Intact / Impaired

(Recent memory : Can be checked by asking patients about their appetite and then about what they had for breakfast or for dinner the previous evening.

Remote memory : Can be tested by asking patients for information about their childhood that can be verified later.

Immediate memory : Ability to repeat three words immediately and 3 to 5 minutes later)

Intelligence : Intact / Impaired

(General knowledge / Arithmetic ability / Similarities and dissimilarities between paired objects)

Judgment : Intact / impaired

(Judgment is the ability to assess a situation correctly and act appropriately within the situation Personal / Social)

Insight : Present/ partially present / Absent

(Insight is a patient's degree of awareness and understanding about being ill)

Conclusion

The mental status examination is the part of the clinical assessment that describes the sum total of the examiner's observations and impressions of the psychiatric patient at the time of the interview. Whereas the patient's history remains stable, the patient's mental status can change from day to day or hour to hour. The mental status examination is the description of the patient's appearance, speech, actions, and thoughts during the interview. Even when a patient is mute, is incoherent, or refuses to answer questions, the clinician can obtain a wealth of information through careful observation.

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