Contents

	Subject	Page
1.	Communication	2
2.	Health education	13
3.	Health educator	21
4.	Method of health education	30
5.	Agencies providing health education	56
6.	Counseling	64
7.	Health literary	69
8.	Electronic health education	76
9.	Telehealth	83
10.	Evaluation	95

Communication

Outlines:

- Introduction.
- Definition.
- Component or elements of communication.
- Types of communication.
    - Verbal
    - Nonverbal
- Barriers of communication.
- Measures to improve communication
- Reference.

Introduction:

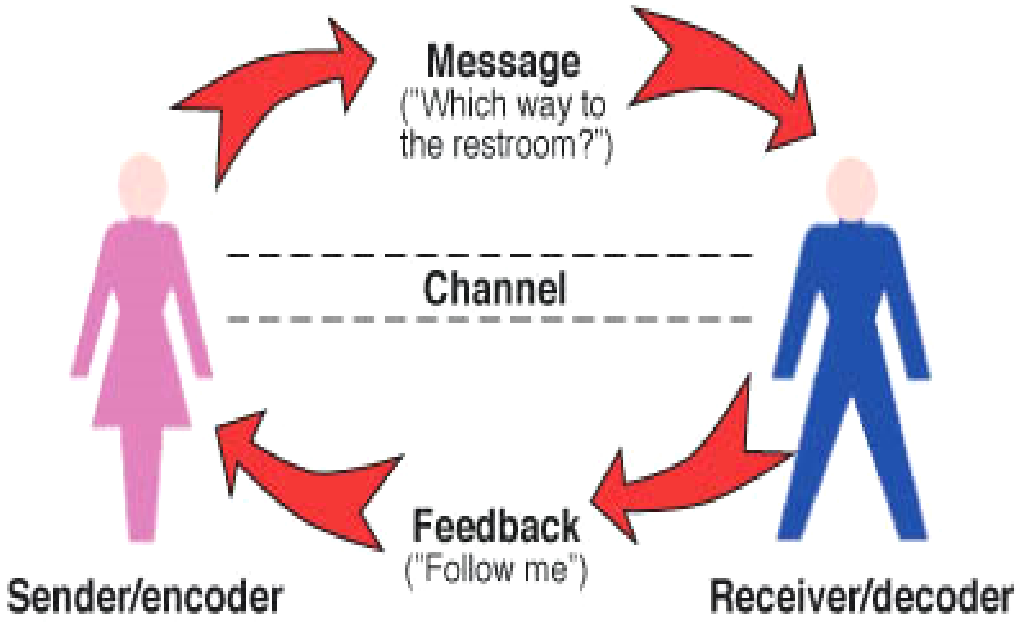
Communication is an important behavioral skill that allows us to survive in and interact with our world. Through our ability to communicate, we express our needs and wishes, understand others' needs and wishes, negotiate adversity, and convey our feelings to others. We rely on our ability to communicate effectively to gather and share information as well as to build relationships with patient and families. This information should promote development of the skills needed to communicate effectively and promote optimal health for older adults.

Definition of communication:

☒Communication is two –way process concerned with conveying a message or an idea between two or more individual, one person is sender and one is the receiver of message.

☒Communication is the process or means by which an individual relates experiences, ideas, knowledge, and feelings to another

The communication process:



Communication occurs as a sequence of events. The process consists of seven basic parts that work together to result in the transference and understanding of meaning.

1.A message

The first part of communication process is a message, which is an expression of the purpose of communication. Without the message, there can be no communication.

2.A sender

Sender is the person (or persons) conveying a message.

3.A receiver

A receiver is the person (or persons) to whom the message is directed and who the intended recipient of the message.

Encoding

Encoding which refers to the sender's conversion of the message into symbolic form. This involves how the sender translates the message to the receiver.

4.A channel

A channel or medium through which the sender conveys the message the channel may be a written, spoken, or nonverbal expression. Examples include an e-mail stating a request, a report providing information, a written care plan, a verbal request for clarification, or a facial expression indicating confusion.

5.Decoding

Decoding which is the sixth part of the communication process. The receiver's ability to decode the message is influenced by the knowledge of the topic, skills in reading and listening, attitudes, and sociocultural values.

6. A feedback loop

A feedback loop which refers to the receivers indicating that the message has been understood (decoded) in the way that the sender intended (encoded).

Types of communication

Communication can be classified in the following different ways.

- **Verbal communication:-**

The basis of communication in the interaction between people. Some of the key components of verbal communication are sound, words, speaking, and language.

Characteristics of verbal communication

1.Verbal or oral communication is the use of language to convey message.

2.It implies, attitudes, thought, feeling that communicated through spoken or written words which be clear, concise, purposeful, and direct.

3.Verbal communication is largely conscious, because people choose the words they use. The words used very among individual according to culture, socioeconomic background, age and education.

4.The sender of verbal communication should choose the right time and environment to convey message.

The effective verbal communication:

Using TACTFUL conversations:

T= thinking before you speak.

A= apologize quickly when you blunder.

C= converse, don't compete.

T= time your comments.

F= focus on behavior not on personality.

U= uncover hidden feelings.

L= listen for feedback.

- **None verbal communication:-**

Is the process of transmitting message without spoken words, sometimes called body language? Message can be communicated through facial expression, gestures and posture; many include the space we use around us. Object communication includes clothing, hairstyles, decoration, and shoes.

Elements of nonverbal communication:

1- Personal appearance:

It include physical characteristic. Manner of' dress and grooming, make up, jewelry, hairstyle, This factors help in communicate personality, social status, occupation and religion first impression are based on appearance so the nurse can develop general impression about client wellbeing, and emotional status.

2- Facial expression:

Facial expressions are the most important source of non-verbal communication. They generally communicate emotions e.g. Anger, sadness, joy, fear and surprise that reveal little about what they are thinking or feeling. Some people are extremely expressive, and other is masked.

3- Eye contact:

Eye contact is another very important cue in communication.

- maintaining eye contact during conversation show respect and willingness to listen.

- Lake of eye contact may indicate anxiety, discomfort or that

person is avoiding communication.

4-Posture and gait:

The way of people sitting, standing and move reflect altitude, emotions and self-concept. E.G." erect posture and quick communicate indicates confidence and wellbeing; slow shuffling gait indicate depression, fatigue or illness.

5- Para language.

Is the non-verbal aspect of verbal communication. It includes tone of voice, volume "loudly, softy" and sound" e.g. Crying, gasping, singing".

E.g. Speaking loudly may indicate feeling of anger. Speaking softly may indicate a concern.

6- Touch:

It is a powerful tool that conveys either negative or positive expression, therapeutic use of touch is effective in conveying non-verbal message and feeling of love, it include hand shaking, hugging, holding hands and affected by culture.

7- Gesture:

Body gestures provide clues about persons and about how

they feel toward others. Hand gesture can communicate anxiety. Indifference and inpatient, Body position gives cues about how open a person is to another person, or how interesting and attractive one person is to another. E.g. depressed patient may take fetal position.

8- Personal space (proximities):

Personal space refers to an area with invisible boundaries surrounding the person's body, that other is expected not to invade.

The range of personal space is culturally learned as well as individually determined, based on personal comfort. Also it depends on nature of relationship and situation.

Communication Barriers

A) Barriers related to sender level:

1-Does not know the subject.

2-Cannot communicate the message.

3-Does not formulate clearly the objectives.

4-Does not formulate well the message.

5-Does not choose the language of the receptor.

6-Does not adapt the tone of voice.

B**) Barriers related to message level**:

1-Difficult words.

2-Is not interested to the receiver.

3-Is not relating to the stated objectives.

4-Unclear confusing not brief.

C) Barriers related to channel level:

1-Noise.

2-Not adapted to the message transmission.

3-Not accessible to the receptor.

D) Barriers related to the receiver level:

1- Indifferent to the message.

2- Could not decode the message.

3- Cannot receive the message.

4- Poor listening condition.

E) Barriers related to environment.

1-If the location of communication is overcrowded.

2-If location is noisy.

3-If the place is threatened &discomfort.

4-If climate is too cold or too hot.

<u>Measures to improve communication</u>:

- Maintain active listening. E.g. maintain eye contact, give full attention.
- Accept the patient's mode of communication with

appropriate response, conveying interest and understanding.

- Minimize your verbal participation; so the patient will have the chance of leading the verbalization.
- Accept periods of silence.
- Avoid offering reassurance too quickly, changing the patient's conversation topic or defending.
- Provide the amount of information the person could handle rather than the amount you might won't to give.
- Be ready to give feedback.
- Utilize effective and therapeutic technique of communication according to the situation.
- Provide right climate and environment

Health Education

Out Line

- Introduction
- Definition of health education
- Objectives of health education
- Principles of health education
- Content of health education
- Method of health education

.

❋ Introduction:

Health education is essential tool of community health. Every branch of community health has a health educational aspect and community health worker is a health educator. The object of health education is "to win friends and influence people".

❋ Definition of health education:

Health education has been defined as teaching process, aiming to changes in the health knowledge, attitude, and practice of people.

❋ Objectives of health education:

A- Informing people or disseminate scientific knowledge about prevention of disease and promotion of health.

b- Motivating people is more important than informing because simply telling the people about health is not enough. They must be motivated to change their habits and ways of living because many of our daily health problems need change of human behavior.

c- Guiding into action: health education should be conducted by a variety of health, education and communication personnel in a variety of settings starting with the physician.

d- To equip the people with skills, knowledge and attitudes to enable them solve their health problems by their own actions and effort.

e- To promote the development and proper use of health services.

❋ Principles of health education:

1- Interest:

The health educator will have to bring about recognition of the needs before he proceeds to tackle them.

2- Participation:

Participation is based on the psychological principle of active learning; it is better them passive learning, group discussion, and workshop. All of the previous is provide opportunities for active learning.

3- Known to unknown:

In health education work, must proceed from the known to the unknown i.e. start where the people are and with what they understand and then proceed to new knowledge.

4-Comprehension:

In health education must know the level of understanding, education and literacy of people to whom the teaching is directed. One barrier to communication is using words, which cannot be understood. Teaching should be within the mental capacity of the audience.

5-Reinforcement:

Repetition at intervals is extremely useful and assists comprehension and understanding.

6-Motivation:

Every person, there is a fundamental desire to learn. Awaking this desire is called motivation

7- Learning by doing (practice and skills).

8- Communication:

Education is primarily a mother of communication. The health educator must know how to communicate with his audience.

9- Good human relation:

The health educator must be kind and sympathetic and the people must accept him, as their real friend.

10- Leaders:

Psychologists have shown and established that we learn best from people whom we respect. In the field of health education, we try to penetrate the community though the local leaders.

❋ Contents of health education:

1- Human biology:

Teach about structure and functions of the body and how to keep physical fit. Also the need for exercise, rest and sleep. The effect of alcohol, smoking, resuscitation and first aid.

2- Nutrition:

The aim of health education in nutrition is to guide people to choose optimum and balanced diet who contain nutrient necessary for energy growth and repair.

3- Hygiene

This has two aspects:

a) Personal

b)Environmental

4-Mother and child health care as

- Antenatal care
- Post natal care
- Hygienic care of mother and child.
- Weaning
- Family planning
- Immunization
- Prevention of accident among children.

5-Prevention of communicable disease

The aim of education in prevention of communicable is to prevention of infection and importance of immunization

6-Mental health

The aim of education in mental health is to help people to mentally healthy and to prevent a mental breakdown.

7- Prevention of accident

Safety education should direct to the three main areas homes, road and place of working.

8-Use of health services:

One of the declared aims of health education is to inform public about the health services that are available in the community, and how to use them

❋ Techniques of heath education:

The techniques of health education are mainly the following:

I-Face to face heath education

Concept:

The educators are facing the recipients directly with any intermediate.

Situation:

The possibilities of the human instruction of the situation might be:

- One educator facing one recipient.
- One educator facing multi recipients.
- Multi educators are facing one recipient.
- Multi educators are facing one recipient.

Advantage of face to face methods:-

1-There is more involvement and participation of the recipient.

2-It is two way of communication.

3-It provides immediate and personal rewards for competence or punishment.

4-It is flexible (change topic according to recipient).

2- Mass Media:

This technique is refereed to when to when a health education message is needed to be communicated to masses of people.

This mass is a heterogeneous group of people with different needs and interests. Types of mass media:

The following types of mass media could be used for health

education

1)Auditor media:

- Microphone
- Magnetic tap recording

2)Visual media:

1. Book, booklets, pamphlets
2. Periodicals
3. Pictures, posters
4. Motion pictures and T.V

Advantage of mass media

1.It helps communication with great many of the population at one time.

2. It attracts the listener attention and might persuade him to act.

Disadvantage:

l. They need effort to produced good effect.

2. It is one-way communication so the recipients do not participate in the educational process.

3. There is a great probability that the recipient feels that ideas are strong to him and they are imposed upon him.

3- Community organization:

Community organization is one of the techniques, used in social work and adopted in health education.

Community organization is processes by which a community identifies its needs or objectives orders or rank, these needs or objectives develop the confidence and will to work at these needs or

objectives find the resources to deal with these needs or objectives.

Steps of community organization:

1. Identifying needs or objectives.
2. Order or rank the needs or objectives.
3. Develop confidence and will to work on these needs or objectives.
4. Finding of community leaders.
5. Forming an executive committee.
6. Finding the resources to deal with the patient.
7. Taking action.

Health educator

Outline:

1. Introduction
2. Definition of Health Educator
3. Characteristics of Health educator
4. Essential Responsibilities and Duties
5. Qualifications
6. Training and Experience Guidelines
7. Role of Health Educator

Introduction:

The health education field is that multidisciplinary practice which is concerned with designing, implementing and evaluating educational programs that enable individuals, groups, organizations and communities to play active roles in achieving, protecting and sustaining health.

Definition of Health Educator

Health Educator Is participate in promoting, maintaining, and improving individual and community health; to assess individual and community needs; plan, implement and evaluate effective health education and promotion programs; provide and communicate health education information

Characteristics of Health educator

Personal Characteristics

- Self-confidence.
- Cheerful
- Optimistic.
- Has a sense of humor.
- Good observer.
- Patient.
- Fair and objective.

- Has physical energy and vitality
- Sociable.
- Provocateur.
- Flexible.
- Respect his learners.
- Anticipate individual needs.
- Perceiving value of time.
- Honest**.**

Professional characteristics

- ***Competent:-***

Health educator should be: Knowledgeable and skillful.

✓ Decision-maker: decide what is important to teach

✓ Choose appropriate learning material

✓ Provide appropriate learning environment.

✓ Teach home management of special problems.

✓ Monitor learners understanding by asking questions and provide feedback.

- ***Caring:***

✓ Have sympathy with learner.

✓ Provide encouragement.

✓ Recognize learners' needs and concerns.

✓ Show sensitivity to patient mood

■ **Communication:**

Health educator should communicate effectively by using verbal &nonverbal communication.

Essential Responsibilities and Duties

- ✓ Plan, organize, coordinate and participate in the development, administration, and evaluation of District health education and promotion programs including wellness, nutrition, physical fitness, tobacco and unintentional injuries
- ✓ Assess community needs by obtaining and analyzing community data
- ✓ Recommend and assist in the implementation of goals and objectives; develop logical scope and sequence plans for providing health education programs
- ✓ Recruit community organizations, resource people and potential participants for support and assistance in program planning
- ✓ Evaluate operations and activities of assigned responsibilities; recommend improvements and modifications; prepare various reports on operations and activities

- ✓ Communicate, both orally and in writing, health education and promotion needs, concerns and resources
- ✓ Prepare written educational materials for distribution to the community; update information as needed
- ✓ Maintain cooperative working relationships with public agencies and coordinate health education program activities with those of other departments and outside agencies and organizations
- ✓ Attend and participate in various organizations and meetings as assigned
- ✓ Act as a resource person in health education; apply appropriate research principles in health education
- ✓ Perform related duties as assigned

Qualifications

Health Educator:

Knowledge of:

- Basic principles and practices of community health promotion programming, social marketing, evaluation, and coalition building
- Electronic communications technology

- Current public health issues including, but not limited to, wellness, nutrition, tobacco control, physical fitness, injury prevention and preventive health care
- Pertinent Federal, State, and local laws, codes, and regulations

Ability to:

- Learn local public health issues including wellness, nutrition, tobacco, physical fitness, and preventive health care
- Assist with the coordination and implementation of assigned health education program
- Learn and apply Federal, State, and local policies, procedures, laws and regulations
- Gain cooperation through discussion and persuasion
- Communicate public health issues clearly and concisely, both orally and in writing
- Establish and maintain cooperative working relationships with those contacted in the course of work

Training and Experience Guidelines

Training:

- Equivalent to a bachelor's degree from an accredited college or university with major course work in community health education, public health education, communications, or a related field. C.H.E.S. (Community Health Education Specialist) certification is highly desirable

Experience:

- No experience required

Health Educator (II)

In addition to the qualifications for Health Educator (I):

Knowledge of:

- Advanced principles and practices of community health promotion programming, social marketing, evaluation, and coalition building
- Current public health issues including, wellness, nutrition, tobacco control, unintentional injury prevention, physical fitness, and preventive health care
- Electronic communications technology
- Pertinent Federal, State, and local laws, codes, and regulations

Ability to:

- Develop and administer community health education programs
- Coordinate and implement the assigned health education program
- Analyze problems; identify alternative solutions, project consequences of proposed actions and implement programs in support of program goals
- Interpret and apply Federal, State, and local policies, procedures, laws and regulations
- Develop community partnerships and coalitions
- Communicate public health issues clearly and concisely, both orally and in writing
- Act as a public health advocate
- Establish and maintain cooperative working relationships with those contacted in the course of work

Training and Experience Guidelines

Training:

- Equivalent to a bachelor's degree from an accredited college or university with major course work in community health education, public health education, communications,

or a related field. C.H.E.S. (Community Health Education Specialist) certification is highly desirable

Experience:

- Two years of community health education experience

Role of health educator:

? Talking to the people and listening of their problems

? Thinking of the behavior or action that could cause, cure and prevent these problems.

? Finding reasons for people's behaviors

? Helping people to see the reasons for their actions and health problems.

? Asking people to give their own ideas for solving the problems.

Health Educational Methods and Materials

Outline

1. Introduction
2. Educational methods:

a) Group discussions

- Definition
- Size of group
- Planning a discussion
- Conducting a discussion
- Advantages of discussion
- Disadvantages of discussion

b) Demonstrations

- Definition
- Size of group
- Planning a demonstration
- Procedures
- Advantages of demonstration
- Disadvantages of demonstration

c) Role – playing

- Definition
- Advantages of role playing
- Disadvantages of role playing

d) Meetings

e) Clubs

f) Village criers

g) Songs

h) Stories

i) Drama

2. Teaching materials

3. Comparison between mass media and face to face channel

4. Factors affecting the selection of teaching methods and materials

Introduction:

Basically health education helps people to make wise choices about their health and the quality of life of their community. To do this, accurate information must be presented in an understandable way using different methods.

Ways to put across health messages:

1. Direct – Interpersonal (Individual and groups)
2. Indirect – Mass media and visual aids.

I. Educational method

a) Group discussions

Definition: Discussion methods are open conversation and an organized exchange of ideas or point view on a selected topic or particular problem this is called discussion.

Size of a group

For sharing of ideas an ideal group is the one with 5-10 members. If the members are large every one may not have a chance to speak.

Planning a discussion involves:

• Identification of the discussants that do have a common interest E.g. mothers whose child suffers from diarrhea.

• Getting a group together

• Identification of a comfortable place and time:

Conducting the discussion

• Introduction of group members to each other

• Allow group discussion to begin with general knowledge

E.g. any health problems they have ever faced

• Encourage everyone to participate.

- Have a group act out some activity (drama, role play)

- Limit those who talk repeatedly and encourage the quiet to contribute.

• Limit the duration of discussion to the shortest possible, usually 1-2 hrs.

• Check for satisfaction before concluding the session.

Advantages:

1) It is both learners centered and Subject centered.

2) Stimulates learners to think about issues and problems.

3) Encourage members to exchange their own experiences, so making learning more active and less isolating.

4) Provides opportunities for sharing of ideas and concerns.

5) Fosters positive peer support and feelings of belonging.

6) Improve critical thinking.

Disadvantages:

1) One or more members may dominate the discussion.

2) Easy to digress from the topic, which interferes with achievement of the objectives.

3) Shy learners may refuse to become involved or may need a great deal of encouragement to participate.

4) Requires skill to tactfully redirect learners who digress or dominate without losing their trust and that of other group members.

5) More time consuming for transmission of information than other methods such as lecture.

6) Requires teacher's presence at all sessions to act as facilitator and resource person. Discussion can be blocked due to side talking or interruption

d) Demonstrations:

Definition:

A demonstration is a step-by step procedure that is performed before a group. They involve a mixture of theoretical teaching and of practical work, which makes them lively. It is used to show how to do something.

Planning the Demonstration

• Identify the needs of the group to learn

• Collect the necessary materials such as models and real objects or posters and photographs.

• Make sure that it fits with the local culture. E.g. for nutrition demonstration you have to use the common food items and local cooking methods.

• Prepare adequate space so that everyone could see and practice the skill.

• Choose the time that is convenient for everyone.

Procedures

• Introduction: Explain the ideas and skills that you will demonstrate and the need for it

• Do the demonstrations: Do one step at a time, slowly. Make sure everyone can see what you are doing. Give explanations as you go along.

• Questions: Encourage discussion either during or at the end of the demonstration. Ask them to demonstrate back to you or to explain the steps.

• Summarize: Review the important steps and key points briefly.

Advantages of demonstration method:

1- It activates several senses:- this increases learning because the more senses used the more opportunities for learning

2- Teacher is present and this allows quality supervision that provides an opportunity for well-directed practice and so limiting damage.

3- Learning step by step.

4- Attention catching.

5- It stimulates interest by use of concrete illustrations.

6- It presents reality and correlates theory with practice.

7- It gives the teacher an opportunity to evaluate the student's knowledge of procedure and to determine if re teaching is necessary.

8- It provides students with ideas and concepts and clarifies underlying principles by demonstrating the "why" of procedures.

9- It provides students with practical and intellectual skills.

Disadvantages of demonstration method:

1- Number of students is limited.

2- Keep students in passive situation due to limit participation.

3- Limit audience/client input.

4- Require preparation.

5- Little possibility of checking learning process.

6- High cost in personnel and time.

7- Require competence and knowledge.

j) Role - playing

Role-playing consists of the acting out of real-life situations and problems. The player tries to behave in a way that the character might behave when faced with a given situation or problem.

Advantages of role-playing:-

1. Role-playings encourage learner participation and stimulate thinking.

2. Role-playings motivate learners by involving them in a realistic situation.

3. Role-playings help learners understand another person's perspective or situation:

 Learner experience and understand a variety of situations from different points of view.

 Learner learn to empathize with people.

4. Role-playings can inform, assess, and improve a variety of learners' skills and attitudes such as:

 Communication and interpersonal skills needed to interview

 Demonstrated attitudes such as caring, compassion, and understanding.

 Skills needed for choosing and implementing solutions or plans (i.e., problem solving and decision-making)

5. Role-playings give learners opportunities to receive feedback on their performance in a safe setting.

Disadvantages of role-playing:-

1. Cannot be used successfully till the group understands and accepts it as a method of learning.

2. Time consuming.

3. Require willing volunteers who would be ready to act.

4. Limited to small groups.

5. A role part loses its realism and credibility if played too dramatically.

6. Some participant may be uncomfortable in their roles or unable to develop them sufficiently.

b) Meetings:

Meetings are good for teaching something of importance to a large group of people. They are held to gather information, share ideas, take decisions, and make plans to solve problems. Meetings are different from group discussions. A group discussion is free and informal, while meetings are more organized. Meetings are an important part of successful self-help projects.

Planning a meeting:

• It should be need based

• Determine the time and place

• Announce the meeting through village criers or word of mouth.

• Prepare relevant and limited number of agendas.

Conducting the meeting

• Should be led by a leader

• Encourage participation as much as possible

• Try to reach a consensus based decisions

• Use some visual aids to clarify things

• Finally, get ready to take actions to solve problems.

c) Clubs

There are many kinds of organizations to which women, men and young people belong. Clubs are becoming popular in many areas.

They provide an opportunity for a systematic way of teaching over an extended period of time. E.g. a group of citizens could form an association to deal with problems related to a major local disease or to protect the environment.

e) 'Village' criers

They spread information in the community in the past eras & even today in remote areas where modern mass media are scarce. When they have something to say, ordered by village leaders, they may use a bell or drum to attract attention. Drum beats and other sounds can be a special code or signal that people understand. The significance about these people is that the villagers know who is the real village crier and may only respect information coming from him or her.

The following messages could be passed on:

• A reminder to mothers to immunize their children

• A request that people participate in a village sanitation campaign

• A call for people to work in a community project such as digging a well

• A warning about dirty water during cholera outbreak

f) Songs

Songs can be used to give ideas about health. You can give topics that you want to make popular to those persons for synthesis and dissemination.

For instance, the following issues could be entertained:

• The village without safe water

• The malnourished child who got well with the proper food to eat

• The village girl who went to school to become a health extension worker

• The house where no flies and mosquitoes breed

g) Stories

Stories often tell about the deeds of famous heroes or of people who lived in the village long ago. Story telling is highly effective, can be developed in any situation or culture, and requires no money or equipment. An older person, instead of directly criticizing the behavior of youth, may tell stories to make his/her points. He/ She may start by saying, "I remember some years ago there were young people just about your age…" and then continue to describe what these young people did that caused trouble.

Stories may also be a way of re-telling interesting events that happened in a village. So stories can entertain, spread news and information so that people are encouraged to look at their attitudes and values, and to help people decide how to solve their problems.

i) Drama

Dramas should have one main learning objective but can often include 2 or 3 other less important objectives as well. Alike stories, dramas make us look at our own behavior, attitudes, beliefs and values in the light of what we are told or shown. Plays are interesting because you can both see and hear them.

General principles

• Keep the script simple and clear

• Identify an appropriate site

• Say a few words at the beginning of the play to introduce the subject and give the reasons for the drama

• Encourage questions and discussions at the end

II. Teaching materials (aids)

The use of teaching materials (aids) in teaching is a powerful contributing factor to better learning.

Instructional resources are sometimes called instructional media or audiovisual aids. They are ways by which instruction is communicated. There are a vast variety of instructional resources, ranging from simple to sophisticated ones. All resources are efficient, and none of them is better than the other for learning. But, it is preferable to use a

combination of them for effective and efficient teaching. There are

Three main groups of instructional resources:

1-Non-projected

2-Projected

3- Sound.

1) Non-Projected Media: such as: books, handouts, and other printed matter, real objects and specimens; models and simulation devices; graphics (charts, diagrams, schematic drawings); posters; paintings; and photographic prints; chalkboard; and flannel-board.

2) Projected Media, such as:

A-Still pictures "opaque projection; transparencies for overhead projection; slides and film strips".

B-Moving pictures "films, broadcast; closed circuit television and videotape

3) Sound Media "broadcast radio, sound recording".

1) Non-projected media

Media	Advantages	Limitations
A)Books, hand-outs and other printed matter	1. Some learn best through reading. 2. Allows self-pacing. 3. Good for reference and revision. 4. Handouts easily produced, duplicated, revised, for large number of students; can also be associated with teaching to reduce need for notes; can be reproduced in local languages.	1. Published textbooks expensive, and sometimes involve foreign currency problems. 2. Published textbooks rapidly out of date and only revised rarely! 3. Good manuals and handouts demand good typing and reproducing facilities.
B)Real objects and specimens	1. Present reality, not substitutes. 2. Three dimensional. 3. Permit use of all senses in study.	1. May not be easily obtainable. 2. Inconvenience of size-danger in use. 3. Costly or not

		expendable. 4. Usually only usable in small groups. 5. Sometimes easily damaged. 6. Problems in storage.
C)Models and simulation devices	1. Three dimensional and concepts of reality. 2. Size allows close examination. 3.Good for magnified situation (e.g. middle ear mechanism). 4. Can-be used to demonstrate function as well as construction. 5. Can permit learning and practice of different techniques. 6. Some can be made with local material.	1 .Craftsmanship required for local construction. 2.Simulation models, often expensive. 3. Usable for small groups. 4. Models often, easily damaged. 5. Never same as performing technique on a patient. Beware wrong learning.

D)Graphics (charts diagrams schematic drawings) posters paintings, photographic prints	1. Promote correlation of information. 2. Assist organization of material. 3. Photographs nearer to reality than drawings, but association often valuable. 4.Usually easily produced and duplicated (black and white photos) 5. Easy to store, catalogue and retrieve.	1.For small audiences only (Unless projected *with* epidiascope). 2.For effective use good Duplicating equipment and trained staff needed.
E)Chalkboard (Blackboard)	1.Inexpensive, can be made locally 2.Usable for wide range of graphic representation. 3.AIIows step-by-step build up, or	1. Back to audience. 2.Audience limited to 50 or so 3. Careful drawings erased not preserved for future use. 4. (Considerable skill

	organization of structure or concept.	required for effective use rarely taught to teachers).
F) Flannel board (flannel-graph). Note most comments also refer to magnetic board	1. Maybe used repeatedly. 2.Usually preparable from locally available materials. 3. Good for showing changing relationships. 4. Hold attention if well used. 5. Can be adapted for group participation.	1 .For limited audience only. 2. Difficult technique to use convincingly.
G) Field trips (not strictly media, but useful as a comparison of factors).	1. Observation of a participation in reality. 2. Opportunity for cooperative group work and sharing responsibilities. 3-Good method for individual motivation	1. Costly in time and transport. 2. For limited audience only. 3. Requires careful planning for effect. 4. Distractors cannot be controlled.

2) Projectable Media:

Media	*Advantages*	*Limitation*
A)Still Pictures: a- Opaque projection (epidiascope) This Is equipment based method only as all materials selected form previous section I	**1.**Enlargement of drawn or printed materials for large audiences 2.Obviate need for producing slides and transparencies. 3.For transferring enlarged image to chart or blackboard for copying. 4. for projection of small objects and specimens.	1.Demands total darkness for clear projection (except with very expensive models). 2.Bulky machine, difficult to transport. 3. Electricity required.
b- Transparencies for overhead projection	1. Projectable in fully day light to large audiences. 2. Presented facing audience.	1. Electricity required. 2. Equipment and materials for making sophisticated trans-

	3. Relatively easy to prepare with local materials. 4. Subjects can be drawn in advance or developed by stages with the group. 5. Can demonstrate "movements, processes, etc. with Perspex models.	parencies expensive. 3. Not usually suitable for photographic material due to cost (although adapter available to take 35mm slides). 4. Usually restricted to teacher use, as it is not easy to adapt for the learner to use.
C-Slides and film-strips.	1. Suitable for large audiences. 2. Relatively easy production an (in black and white) reproduction. 3. Cheapest current form of visual. 4. Easily adaptable to	1. Fixed order of frames in, filmstrip restrictive in use. 2.Need partial darkness for viewing unless rear screen or day light screen used. 3.Duplication of

	self-instructional units. 5. Equipment available for viewing or projection without electricity source.	color slides expensive (even impossible in many countries).
B)Moving Pictures: a-Films (comments include reference to both 16mm and 8mm formats).	1. Close to reality with movement and sound. 2.SuitabJe for large audiences (16mm) for small groups only (8mm) , 3. Compression of time and space. 4. Emotive, can develop attitudes, pose problems, and demonstrate skills. 5. 8mm loops useful for individual instruction. 6. Good learning source if preceded by	1. Does not permit self-pacing. 2. Films costly and difficult to procedure. 3. Individual films relatively expensive. 4. Electricity required. 5. Equipment difficult to transport. 6. Darkness for viewing (except rear screen use). Imported film may contain

	teacher's introduction followed by discussion.	inappropriate information
b-Broadcast (open circuit) television	1.Adaptable to large and Small audiences in widely distributed area 2. Capable of gaining arid maintaining attention. 3. Can stimulate emotions, build attitudes and develop problems. 4. Can conserve resources of instructors by "simultaneous broadcast to many classes.	1.Programme expensive to produce and demands highly skilled staff. 2.Receiving equipment Expensive and difficult to maintain. 3. Electricity required. 4. No immediate interaction or feedback. 5. Learner must adapt to fixed schedule, never the other way round.

c-Closed circuit television and videotape (including video-cassettes)	1. Adaptable to medium and small audiences. 2. Videotape repeatable to fit learning schedules. 3. Film advantages 1,3 and 4 apply (see above). 4.Valuable for magnification of image, recording intimate situations, micro-teaching, recording of developments in clinical syndromes or in scientific experi-ments, "bringing the village into the classroom", recording emergencies etc..	*1.* High initial cost of production equipment, and requirement of trained staff. 2. Electricity required. Although portable works off battery, this needs charging from power source. 3. Receivers are expensive and require maintenance.

	5. Portable equipment can function on battery for field recording.	

3) Sound Media

Media	**Advantages**	**Limitation**
a-Broadcast radio	1. Adaptable to large and small audiences in widely separated areas. 2. Conserves resource of Instructors by broadcasting simultaneously to many classes. 3. Capable of gaining maintaining attention. 4.Reception equipment relatively cheap and will function on batteries 5. If combined with	1.Special studio facilities and staff required for broadcast (Less expensive and complex than broadcast television). 2. Learners must adapt to fixed schedule, no other way round. 3. No immediate feedback and no audience interaction.

	prepared materials (radio vision) can be improved learning tool.	
b-Sound recording (reel and cassette tape, records / discs)	1. Adaptable to any size of audience. 2. Especially suited to individual and small group learning. 3. Due to stop and playback facilities of tape can be student paced. 4. Cheap, battery operated cassette players available and relatively cheap cassettes. 5. Many uses - to provide sound for slide sequences, for micro-teaching, heart sounds, for posing problems, etc.	1.Use for individual learning demands many playback Units 2. Good quality recording: demands studio facilities.

Main characteristics of mass media and face- to- face channels:

Characteristics	Mass media	Face-to-face
Speed to cover large population	Rapid	Slow
Accuracy and lack of distortion	Highly accurate	Easily distorted
Ability to select particular audience	Difficult to select audience	Can be highly selective
Ability to fit to local needs	Provides non-specific information	Can fit to local need
Direction	One-way	Two-way
Feed back	Only indirect feedback from surveys	Direct feedback possible
Main effect	Increase knowledge/awareness	Change in attitudes and behavior problem solving.

Factors affecting selection of Teaching Methods and Materials

The selection of the teaching methods and aids depends on

1. The type of the message
2. The purpose
3. The people addressed
4. Availability of resources
5. Availability of skills.

Agencies providing health education

Ministry of health

The ministry of health is responsible for providing health services for all sectors in the community. One of the functions of the ministry of health is planning for health education programs based on national and international researches. The ministry of health is responsible for the following agencies such as:-

- Governmental and nongovernmental hospital.
- Health care units: In different specialties such as coronary care unit, diabetic units, terminological units.
- Health centers: In the rural sectors to deal with health problems in local areas.
- Occupational health centers: To deal with occupational hazards facing workers this leads to health problems.

International organizations such as world health organization (WHO) which develop international health education programs for specific health problems.

Associations such as the simulation diabetes associations, international health associations ...etc.

These associations focused on the results of recent researchers in medication, advanced treatment for patients suffering from special diseases.

Schools

The health educators teach health as a subject and promote and implement Coordinated School Health Programs, including health services, student, staff and parent health education, and promote healthy school environments. At the school district level they develop education methods and materials: coordinate, promote, and evaluate health programs. Examples of health information at school:

- Health awareness programs in the elementary schools about
  healthy behaviors related to hygiene, rest, food. ..etc.
- Diseases prevention programs to prevent unhealthy behaviors such
  as smoking, drug addiction, and sexual transmitted diseases.

Universities and colleges

Health educators are part of a team working to create an environment in which students feel able to make healthy choices and create a caring community. They identify needs;

advocate and do community organizing; teach individual or group health classes; develop mass media campaigns; and train peer educators, counselors, and/or advocates them. They address issues related to disease prevention; consumer, environmental, emotional, sexual health; first aid, safety and disaster preparedness; substance abuse prevention; human growth and development; and nutrition and eating issues. They may manage grants and conduct research.

Companies and Occupational Health Centers:

Health educators perform or coordinate employee counseling as well as education services, employee health risk appraisals, and health screenings. They design, promote, lead and/or evaluate programs about weight control, hypertension, nutrition, substance abuse prevention, physical fitness, stress management and smoking cessation; develop educational materials; and write grants for money to support these projects. They help companies meet occupational health and safety regulations, work with the media, and identify community health resources for employees.

Health care settings

(Governmental, non-governmental/ private hospitals, Health Care Centers).

Health educators educate patients/clients about medical procedures, operations, services and therapeutic regimens, create activities and incentives to encourage use of services by high risk patients; conduct staff training and consult with other health care providers about behavioral, cultural or social barriers to health; promote self-care; develop activities to improve patient participation on clinical processes; educate individuals to protect, promote or maintain their health and reduce risky behaviors; make appropriate community-based referrals, and write grants. Structured instructors provided for patients related to patients needs and problems presented by the physician and professional nurses and trained person for teaching health massages.

Community organizations (Rural Centers)

Health educators' help a community identify its needs, and mobilize its resources to develop, promote, implement and evaluate strategies to improve its own health status. Health

educators develop, and evaluate mass media health campaigns.

WHO Collaborating Centers

WHO Collaborating Centers are designated by the Director-General, WHO, as part of an inter-institutional collaborative network of centers worldwide. They are established to provide concrete activities at the national, regional, and global levels, in support of the strategic plans of specific WHO areas of work. All WHO Collaborating Centers in the Region of the Americas are known as PAHO/WHO Collaborating Centers since the Pan American Health Organization also serves as a WHO regional office. Currently there are over 180 Centers in 15 countries in the Americas.

Collaborating Centers may be departments, laboratories or divisions within an academic or research institution, hospital or government. They cooperate with a specified PAHO/WHO Technical Area, according to mutually agreed upon terms of reference. This agreement is initially for a period of four years and in some cases may be renewed for an additional period of up to four years PAHO/WHO technical officers identify eligible centers that are capable and willing to apply.

Then, these officers initiate a proposal for designation from either the regional or global WHO program. Spontaneous applications or self-nominations by institutions are not accepted. Complete details about WHO policies, procedures and responsibilities are available in the Guide for WHO Collaborating Centers at this site.

Over 700 institutions in over 80 countries supporting WHO programs

WHO collaborating centers are institutions such as research institutes, parts of universities or academies, which are designated by the Director-General to carry out activities in support of the Organization's programs. Currently there are over 700 WHO collaborating centers in over 80 Member States working with WHO on areas such as nursing, occupational health, communicable diseases, nutrition, mental health, chronic diseases and health technologies.

The term "institution" means the part (e.g. department, division, unit, etc) of the institution (e.g. university, research institute, hospital or academy) or Government that is being proposed for re/designation. Example: Department of Microbiology of the

University of ABC…

The term "WHO CC" means the institution designated as a WHO collaborating center while performing the agreed terms of reference and work plan with WHO (as opposed to the institution performing other activities outside the agreed terms of reference and work plan). Example: Department of Microbiology of the University of

ABC… when working on two activities included in their designation form and agreed with WHO.

GENERAL CONDITIONS

Upon designation, the designated institution will be responsible for:

a) Implementing the agreed plan of work in a timely manner and to the highest possible standards of quality.

b) Bringing to the attention of the WHO responsible officer any issue that can delay or compromise the implementation of the work plan, and/or any change in the information provided in this form;April 2014.

c) Submitting annual progress reports via eCC on the anniversary of the designation date and as may be requested by WHO.

d) Initiating discussions with the responsible officer at WHO at least six months prior to the expiration of the period of designation, with a view to evaluating any possible re-designation of the WHO CC.

Counseling

Outline:

- Definition
- Purpose of Counseling
- Counseling process
- Principles of good counseling
- Steps of counseling

Definition:

It is the means one person helps another through purposeful conversation

Aim of counseling:

Counseling is a process aims to help people cope better with situations they are facing. This involves helping the individual to cope with their emotions and feelings and to help them make positive choices and decisions.

Purpose of Counseling:

- To help clients achieve their personal goals, and gain greater insight into their lives.
- One hopes that by the end of this process one will be more satisfied with his or her life.
- helps people build skills they can use in solving their problems

Counseling process:

Counseling is a process that usually has a beginning, middle, and end:

1- **The beginning**: The counsellor starts to build a trusting relationship with the client and finds out important information about the client's problem

2- **The middle**: the counsellor helps the client set goals — make decisions about what the client wants. Once goals are decided, the

counsellor and client develop ideas about how the client can reach those goals. During this period, the client will try certain things. Then the counsellor and client discuss what happened and whether the method is working.

3-The end: When the client feels she has achieved what she wanted, the client and counsellor prepare for the end of counselling

Principles of good counseling:

- Treat each client well
- Individualize each client is a different person
- Give the right amount of information
- Tailor and personalize information presented.

Steps of counseling::

Greet the client:

- Welcome each client on arrival
- Meet in a comfortable, private place.
- Assure the client of confidentiality.
- Express caring, interest, and acceptance by words and gesture throughout the session

Ask the client about herself; assess her needs, health, problems, and goals:

- Find out the reason for to talk.
- Encourage the client to do most of the talking.
- Ask open questions.
- Pay attention to what the client says and how it is doing said.

- Use focused questions.
- Put yourself in the client's place and do not express criticism or judgment.
- Find out about client feelings
- Ask about what id going to happen
- Tailor and personalize information
- Give simple and adequate information so as to assist the client in making decisions
- Avoid information " overload" to give the right amount of information
- Use words familiar to client
- Use visual illustrations
- Help the client make a decision by providing appropriate, complete and accurate information about all option, help guide the client to a decision
- Help the client to know all possible options
- Make the client understand how these options will affect their own life.
- Advice without controlling
- Help the client through decision
- Explain the procedure in detail: include detail of the examination and what to expect:
- Provide adequate information
- Explain instructions in detail
- Use illustrations

- Help the client to remember the instruction by:

- Keeping it simple
- Keeping it short
- Keeping it separate
- Pointing out what to remember
- Putting first things first
- Organizing
- Repeating
- Showing as well as speaking
- Giving clients visual materials
- Being specific
- Making links
- Checking understanding

- Return visit discuss why and when she needs to return for follow up and what problems she should report:

- Plan for the next visit
- Encourage the client to come back at any time

Health literary

Out line:-

1. Introduction
2. Definition of Health literacy
3. Factors Affecting health literacy
4. High Risk for Low Health Literacy
5. Importance of Health Literacy
6. Effects of Low Health Literacy
7. Role of Communication in Health Literacy
8. Role of Health care providers

Introduction

Health literacy is increasingly recognized as a necessary element of all efforts to improve health. Health literacy is critical for people's search for and use of health information; adoption of healthy behaviors; and decision-making about health issues in the workplace, community, and society. Furthermore, health literacy is central to people's ability to access the public health and healthcare systems, communicate with health professionals, and engage in self-care and chronic disease management. Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Older people, and other vulnerable populations, often have limited health literacy. Limited health literacy contributes to poor health knowledge, poor disease management skills, poor health status and higher health care costs.

Definition of Health literacy

Health literacy, as defined in a report by the Institute of Medicine, is the ability to obtain, process, and understand basic health information and services needed to make

appropriate health decisions and follow instructions for treatment.

Factors Affecting health literacy

Health literacy depends on both individual and systemic Factors

a. Personal Factors:-

? Literacy skills

? Cognitive skills

? Motivation

? Physical and emotional health

? Experience with health care (people with limited knowledge about the body and the causes of disease may not Understand the relationship between lifestyle factors (such as diet and exercise) and health outcomes, recognize when they need to seek care and

**** Specific health condition:**

? Beliefs about health

? Socioeconomic status

? Social supports

? Culture

b. System Factors:-

? Provider's communication skills (include literacy skills (e.g., reading, writing, and numeracy), oral communication skills, and comprehension).

? Complexity of health information

? Characteristics of healthcare setting

? System demands and expectations upon patients (individuals need to read, understand, and complete many kinds of forms in order to receive treatment and payment reimbursement…etc).

? Time pressures upon health care professionals

High Risk for Low Health Literacy

1. Elderly
2. Unemployed and Underemployed
3. People with low income
4. People with limited education

Importance of Health Literacy:

Health literacy affects our ability to:

? Make healthy lifestyle choices (nutrition labels)

? Find & understand health & safety information

? Locate appropriate health services

? Communicate with health providers.

? To understand health-related instructions

? To follow discharge instructions

? Engage in self-care and chronic disease management

? Adopt health-promoting behaviors

Effects of Low Health Literacy

• Poor health outcomes

• Overutilization of emergency services

• Unnecessary healthcare expenditures

• Limited treatment effectiveness

• Needless patient suffering

• Less compliance and Lowered adherence

• More and longer hospitalizations

• Less preventive care

• Inability to negotiate the healthcare system

Role of Communication in Health Literacy

Good communication is crucial for a successful clinician-patient relationship and effective exchange of information. Breakdowns in communication can lead to confusion for patients, poor health outcomes, and even malpractice lawsuits against clinicians

1. If a provider thinks a patient is having difficulty understanding written or spoken directions, a good

approach is to say, “A lot of people have trouble reading and remembering these materials. How can I help you?”

2. Use commonly understood words. For instance, use “keeps bones strong” instead of “prevents osteoporosis.”
3. Slow down and take time to listen to a patient’s concerns. Create an atmosphere of respect and comfort. Build trust with the patient.
4. Limit information given to patients at each visit. Remember that less than half of the information provided to patients during each Visit is retained

Role of Health care providers

•Get the facts about health literacy

•Find easy-to-use materials for patients

•Learn how to speak with my patients

•Develop a program

•Teach others about health literacy

•Help patients access the health system

•Talk to my doctor

•Make treatment decisions

•Know my health risks

•Read about culture and health

•Find materials in other languages

- Teach others about health literacy
- Assess health literacy levels
- Assess literacy levels
- Search the latest research

Electronic health education

Outline:

- ☒ Introduction
- ☒ Definition of e-Health education
- ☒ Uses of E-Health education by patients
- ☒ Advantage of E- Health education and internet for patient
- ☒ Problems faced patient with E- Health education

  Recommendation for patients in using E- Health education
- ☒ Quality of E- Health & internet medical information
- ☒ Importance of E-Health education for nursing

- **Introduction:**

There is great enthusiasm over the use of emerging interactive health information technologies, often referred to as e-Health and the potential these technologies have to improve the quality, capacity, and efficiency of the health care system. E-Health includes such technologies as electronic personal health records; electronic health education libraries; and online personal health journals and self-assessment tools. E-Health has the potential to improve access to the health care system for those whose access is impeded, for example, individuals who live far from a health care provider.

Electronic resources increasingly play a major role in consumer health, with the Internet being the preferred primary telecommunications vehicle for seekers of novel and germane health information. Although now widely relevant, the term electronic health information, also called e-Health education, first appeared in 2000 to describe where health informatics, public health, health services, and information transmission processes intersected, primarily through Web-based applications.

The importance of the Internet to acquire health information has spurred the creation of numerous e- Health information resources that assist consumers in discovering knowledge that can help promote and sustain personal health. Subsequent studies examining the effectiveness of e-Health interventions have proposed many definitions for e-Health.

Definition of e-Health education:

The field where information, education and communication technology design enables the delivery of health-related and medical information.

How large is the internet?

The internet had over 109 million hosts in 230 countries, it is impossible to compute the number of actual people using the internet services. The growth rate of the internet is estimated between 46% & 67% annually, that means have over one billion hosts.

Uses of E-Health education by patients:

There are 20.000 or more web sites on the internet dedicated to every kind of health information. 50% to 80% of adults use internet and CDs with medical information for medical purposes. About 97 million of those adults to look for

health related materials. More than 70% searched for helping in decision making about health problems.

On the other hands, patients& health staff members were searching for drugs or disease information is growing in using web than others.

Advantage of E- Health education and internet for patient:

- Obtain any medical or health information at any time by limited cost.
- Communication with health staff & doctors at home through email.
- Patients identify any new medication or techniques related to their illness.
- There are multiple alternatives sites that may meet differences & preference.
- Patients identify several previous interventions related to their diseases. Operations, pictures, photos educative films are available
- Complications & side effects can be predicted before its occurrence.

Problems faced patient with E- Health education

Information is not interpretable.

- Patients are not search on medical engines but do on their own web-based search prior to office visits.
- Ranking of search engines, because consumers used to use standard search engine.
- Web sites of health materials may be confusing because of jargons.
- Patients are not sure about drugs effectiveness which may lead to severe complication after usage.
- Patients are not observing their health problems as it will be observed by doctors during face to face communication.
- Health related products become a business & patients may falls under its attraction.
- Internet can't be serving in critical situation.

Recommendation for patients in using E- Health education:

There are serious general recommendations:

- The choice of online health information should be handled to some extent like doctor choice.
- Choose more than one choice & compare.
- Look for information at organization, you put trust on it.

- Shop for medical information is less cost than it is to seek several separate medical opinions.
- Check for credential information source by reviewing editorial

  board of experts & up to date references.
- Look for information relating to sponsorship of web site.
- Avoid identifying any unclear information.
- Assured of privacy of other patients health information.
- It is inappropriate to interact with a web-based doctor to diagnosis or treatment based on web interaction.
- Not filling out any information at internet unless the privacy of this information is assured.

Quality of E- Health & internet medical information:

The quality of medical information has a greet variation, there are a variety of credible medical sites as well professional societies & disease specific organizations usually have information for patients; also, there are several academic or commercial institutions have developed excellent general information sites for patients, cover a variety of medical topics or drug-specific information.

There are number of studies were done to evaluate health information on the internet with general theme of the quality including: accuracy, completeness, readability, design, & referencing. Several problems may face the quality of health information as:

- Presentation of inaccurate & unclear content.
- The information is at wrong reading levels.
- Failure to declare a potential bias.

Importance of E-Health education for nursing:

- ✓ A constant source of up-to-date professional information.
- ✓ Provide access of previous information for nursing.
- ✓ Sharing of information through the network with collages all over the world & broadening the body of nursing knowledge.
- ✓ Help in searching about specific nursing dilemmas or conflicted situations.
- ✓ Expands of nursing care standards from regional community to national & international dimensions.
- ✓ Creating new issues& challenges for nursing & health care providers.
- ✓ Provides access of previous information for nursing.

Telehealth

Outlines:

1. Introduction
2. Definitions
3. The Need of telehealth
4. Forms of telehealth
5. Benefits of telehealth
6. Clinical uses of telehealth technologies
7. Nonclinical uses of telehealth technologies
8. Telehealth modes
9. Factors that influencing development of telehealth services
10. Methods of telehealth
11. Challenges
12. Disadvantage of telehealth
13. References

Introduction:

Telehealth is the provision of health care over a distance. Telehealth is simply using digital information and communication technologies, such as computers and mobile devices, to manage your health and well-being. Telehealth, also called e-health or m-health (mobile health), includes a variety of health care services.

Definitions

- **Telehealth** is the transmission of health-related services or information over the telecommunications technology.
- **Telehealth** refers to a broader range of services that includes telemedicine and other remotely proof telehealth video services such as clinical education programs, patient support and education, health information exchange, clinical decision support, electronic health records and laboratory systems, and disaster response support.
- **Telemedicine** is the exchange of medical information from one site to another through electronic communications.
- **Telemedicine** is Two-way real time interactive communication between the patient and the physician or practitioner at the distant site. This electronic

communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment.

- **Telenursing: use of telecommunication**s technology in delivery, management and coordination of nursing care to enhance patient care.
- **Telehealth nursing** is the delivery, management, and coordination of care and services provided via telecommunications technology within the domain of nursing.

The Need of telehealth:

- Administrative meetings
- Aging population
- Clinical education program
- Clinician shortages
- Delayed treatment
- Language barriers
- Misdistribution of providers
- Rural/Urban underserved
- Travel time, cost & hardship

Forms of telehealth delivery:

- Simple as two health professional discussing a case over the phone
- Sophisticated as using video conferencing between providers at facilitates in two countries
- Complex as robotic technology

Benefits of telehealth

1. Improve the way patients and their families access information Improved health outcomes for patients.
2. Empower consumers and communities by providing accessible health education and decision-making options.
3. Improve the way healthcare providers deliver care, access information, and learn.
4. Enhance recruitment and retention of healthcare providers in rural or remote areas.
5. Lower healthcare costs, reduce travel, minimize time off work, and decrease patient waiting time.
6. Decrease self-reported patient anxiety.
7. Eliminate unnecessary repeat diagnostic procedures or tests.

8. Improve early diagnostic capabilities.
9. Improve administrative and communication capabilities.
10. Improve emergency triage.
11. Prevent unnecessary delays in receiving treatment.
12. Reduce or eliminate the separation of families during difficult and emotional time
13. Allow patients to spend less time in waiting rooms

Clinical uses of telehealth technologies:

1. Transmission of medical images for diagnosis (often referred to as store and forward telehealth)
2. Groups or individuals exchanging health services or education live via videoconference (real-time telehealth)
3. Transmission of medical data for diagnosis or disease management (sometimes referred to as remote monitoring)
4. Advice on prevention of diseases and promotion of good health by patient monitoring and follow up.
5. Health advice by telephone in emergent cases

Nonclinical uses of telehealth technologies

1. Distance education including continuing medical education, grand rounds, and patient education
2. Administrative uses including meetings among telehealth networks, supervision, and presentations

3. Research on telehealth
4. Online information and health data management
5. Healthcare system integration
6. Asset identification, listing, and patient to asset matching, and movement
7. Overall healthcare system management
8. Patient movement and remote admission

Telehealth modes:

1- Store-and-forward telehealth

In store-and-forward telehealth, digital images, video, audio, observations of daily living and clinical data are captured and "stored" on the client computer or mobile device; then at a convenient time they are transmitted securely ("forwarded") to a clinic at another location where they are studied by relevant specialists. The opinion of the specialist is then transmitted back. Based on the requirements of the participating healthcare entities, this round trip could take between 1 minute to 48 hours. In the simplest form of telehealth application, basic vital signs like blood pressure, weight, and blood sugar values are monitored and trended for long term chronic care.

2- Real-time telehealth

In real-time telehealth, a telecommunications link allows instantaneous interaction. Videoconferencing equipment is one of the most common forms of real-time (or "synchronous") telemedicine. Peripheral devices can also be attached to computers or the video-conferencing equipment which can aid in an interactive examination. With the availability of better and cheaper communication channels, direct two-way audio and video streaming between centers through computers is leading to lower costs.

Examples of real-time clinical telehealth include:

- Tele-audiology
- Telecardiology
- Teledentistry
- Teleneurology
- Telenursing
- Telerehabilitation

3- Remote patient monitoring

In remote monitoring, the patient has a central system that feeds information from sensors and monitoring equipment, e.g. Blood pressure monitors and blood glucose meters, to an external monitoring center. This could be done

in either real time or the data could be stored and then forwarded.

Examples of remote monitoring include:

- Cardiac and multi parameters monitoring of remote ICU
- Home telehealth
- Disease management

4- Remote Training

Telehealth also provides opportunities for health care professionals in remote locations to receive training. In the United States, the Extension for Community Healthcare Outcomes or ECHO project uses a telehealth platform to help urban medical center specialists train primary care doctors in rural settings. The training allows these general practitioners to provide specialty care, especially chronic condition services, that would otherwise be unavailable to patients in these areas.

Examples of remote monitoring include:

- Home-based nocturnal dialysis.
- Cardiac and multi-parameter monitoring of remote ICUS
- Disease management including COPD, Chronic Heart Failure, Diabetes, Coagulation, Arthritis, Depression, Obesity

5- Remote Home Monitoring or Home Telemonitoring include:

- Store-and-forward

Consultation:

Collecting and Storing Data an example of store-and-forward are images, videos and sound. That information can then be forwarded or retrieved by another healthcare facility for evaluation.

-Clinical Video Telehealth or Teleconferencing:

Allows patients to see a specialist from their home or hospital bed, the patient will not have a need to travel, instead the specialist comes to the patient via video and it allows for live interactions. When high quality images and patient interactions are necessary

Teleradiology:-

Allows radiological images to be sent to multiple locations. Before the images can be sent an image sending station, a transmission network and a receiving / image station is needed.

Hybrid Consultation: -

Is used for when high quality images and patient interactions are necessary. Use both live and store-and-

forward consultations. Hybrid consultations are normally used in specialist / subspecialties such as dermatology, cardiology, orthopedics and family medicine.

Factors that influencing development of telehealth services

1. **Aging population**: the needs of aging health care consumers have initiated efforts to develop and adopt better telehealth system outside institutional walls, system that would be better geared for home- based application
2. **Cost containment**: telehealth system are facilitating redistribution of health care services, reducing duplication, reducing number of drug interaction and reducing patient and professional travel
3. **Access:** demand is increasing for equitable access to health care services for inhabitants of isolated geographic areas
4. **Technology:** ever more powerful technology and communication band width are becoming available at decreasing cost
5. **Demand**: the increasing demand for wellness and health information

Methods of telehealth:

The use of advanced telecommunication technology to exchange information and provide health care services across geographic, time, social barriers:

- Telephone, radio, other voice modalities
- Picture phone, teleconferencing
- Fax, email
- Computers for data/ imaging
- Interactive video

Challenges of telehealth:

- Break down in the relationship between health professional and patient.
- Break down in the relationship between health professionals.
- Issues concerning the quality of health information.
- Organizational difficulties.

Disadvantages of Telehealth

- **Regulatory barriers**

State laws are either unclear or may forbid practice across state lines.

- **Lack of repayment for consultative services**

Most third party payers do not provide reimbursement unless the client is seen in person.

- **Fear of healthcare system changes**

Personnel may fear job loss as more clients can be treated at home and hospital units close

- **Costs for equipment, network services, and training time**

Equipment capable of transmitting and receiving diagnostic-grade images is expensive.

- **Lack of acceptance by healthcare professionals**

This may stem from liability concerns and discomfort over not seeing a client face-to-face.

- **Lack of acceptance by users**

This may stem from discomfort with technology, the relationship with the provider, and concerns over security of information and confidentially.

Evaluation

Outline:

- **Definition:**
- **Aim of student evaluation:**
- **Phases in the evaluation of learning:**
- **Some types of tests' questions**

Definition:

Evaluation is a continuous process based upon criteria, cooperatively developed, and is concerned with measurement of the performance of students, the effectiveness of teachers and the quality of the program. In education, the measuring instruments are referred to as "tests"

Aim of student evaluation:

1. To determine student's success or failure.
2. To provide feedback for student
3. To motivate student to learn.
4. To prove feedback for the teacher
5. To ensure modification of learning activities.
6. To help in selecting students.
7. To estimate the" school reputation"
8. To prove protection of society.

Phases in the evaluation of learning:

There are two phases:

1. Formative or Diagnostic evaluation.

2. certifying or sum, mative evaluation

Student Evaluation:

Four steps in student evaluation, Taking as one basis

1. The criteria (acceptable level of performance) of the educational objectives.
2. Development and use of measuring instruments.
3. Interpretation of measurement data.
4. Formulation of judgments and taking appropriate action.

Some types of tests' questions

Essay Examination Question:

It is a familiar type of questions to all teachers and students. There are many variations of the essay examination, from the traditional type where several questions are asked, to the type where questions are given in advance for study.

Some of the mental processes that can be exercised and evaluated by means of the essay test are: functional knowledge, the ability to organize, contrast, compare, evaluate, finding relationship, formulating a plan of action, and analyze critically. The essay questions are used only to

evaluate a type of achievement which cannot be measured as efficiency by other methods such as the mental process mentioned above"

Procedure:

1. Employ terms that are as clear as possible, such as" summarize, compare evaluate define arrange order" etc., rather than "discuss" or "state in everything you know, so that all students immediately know what they have to do.
2. Choose problems which call for careful consideration, but whose solution can be briefly set out in the time allowed.
3. Mark papers anonymously" names of students do not show on the answer sheets.
4. For each question set out the elements which should appear in the answer "scoring procedure".
5. When two or more teacher correct the same test, they should agree on the scoring procedure before the test, and correct the result separately.

Multiple Choice Questions (MCQ):

It is a test item in which the examinee's (student) task is to choose the correct or best answer from several given answers.

Types of multiple choice questions are:

1. One "best answer or response" type,
2. Multiple true false, -The matching type; and,
3. The comparison type.

Oral Examination:

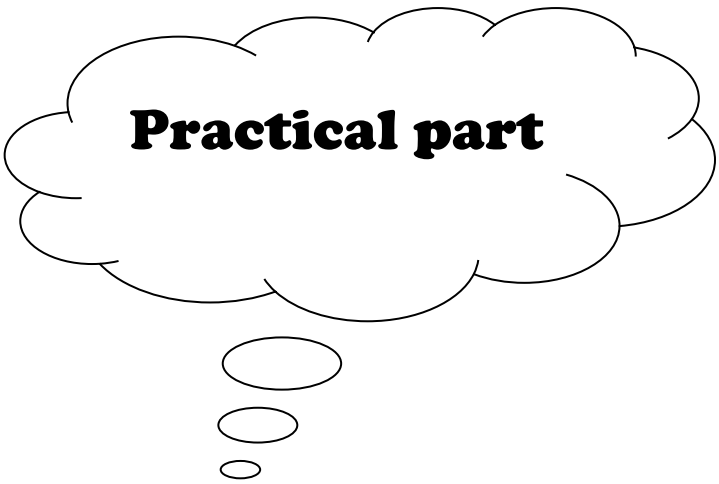
It is one of the most commonly used evaluation devices. Students are examined orally instead of, by a written examination.

Indirect Methods:

1. Completion type questions.
2. Questionnaire.

Direct Observation:

Practical examination.


Practical part

10 Steps for Planning Educational Programs:

Guidelines to Help You Complete the Worksheet and Develop Quality Programs

1. Situation

Study your county/area to assess the needs for educational programming.

What are the hot topics or key issues facing your constituents?

How do those issues relate to your subject area/job description?

For example, if the key agricultural issue in your area is soil salinity, you can begin to identify key contacts and educational responses that would support producer's needs.

What are the environmental factors that might influence this situation?

The environment includes factors that can influence outcomes but they are factors that we cannot control, such as weather, soil type, number of hours of daylight and geography.

Begin by developing a needs assessment to quantify the issues and problems. You might start with a focus group or county advisory committee to develop questions to gather information or to help with designing a survey.

What are the assets of the community?

How could these assets contribute to solving the issue? Examples include active community clubs, school system, diverse population, strong community leadership community pride.

Use may decide to:

- Use existing statistics for low-cost identification/verification of issues.
- Identify other stakeholders to partner with and take a more comprehensive approach to the issue.
- Read more about gathering stakeholder input at: http://www.ag.ndsu.edu/programplanning/needs-assessment

Once you have gathered enough data to really understand the issue and identify partners, determine your role:

- What is it that I can contribute toward a solution?
- What is my area of expertise?

Is it realistic for NDSU Extension Service to address this problem?

Do we have the research-base to support educational programming?

Is this part of an existing program team's plan of work?

Who would I call to discuss this issue as I begin to make plans?

It's critical to have a basic understanding of what other programs have to offer.

Consider whether a team or individual approach is best.

Who are potential partners with similar needs?

2. Target Audiences

Identify the target audience for educational programming.

Are you trying to reach Midwestern canola producers, parents of kindergartners, North Dakota community leaders or junior-high youth in your county?

The general public is not a targeted audience. Clearly define whom you're trying to reach.

What are the demographics of your target audience?

How can you reach them/target them with your planned program?

Think about your target audience's characteristics:

Their personal histories. Your target audience brings many personal experiences to the learning situation. Most people want the opportunity to share their experiences. Be certain to facilitate this sharing rather than just be the expert lecturer or

offer a lecture from someone outside the community who is not informed of your specific target audience needs.

Their preferred learning styles. Very few people enjoy or learn best by sitting through a 50-minute lecture. The more diverse we can be in our approaches, the more effective the learning experience will be. Include time for processing, sharing, demonstrating, thinking about examples.

Their family, work and social responsibilities.

Where does a learning experience fit in their daily priorities? How can the program be made most available to them? Where can they meet most conveniently if face-to-face is required?

At what pace would they like to learn?

Is one time of day better than another?

Is your target audience already gathered through another group?

Does technology make it possible for them to receive this education at home on their own schedules?

Their motivation to learn. Your target audience needs to see practical applications for what they learn, and they need to be able to use their new ideas and practices immediately. Use examples or activities that apply the concepts you're teaching.

Educators must create climates that minimize anxiety, where learners are accepted and free to disagree and take risks.

Are the learners biased for or against any particular teaching methods?

Will this educational effort primarily be used for their:

 Business (production e.g, e-commerce, marketing, etc.)

 Personal life (health, family, home, garden, etc.)

 Community issues (policies and decisions on youth, environment, health, etc.)

 training to train others (train the trainer) 3. Objectives and

Desired Outcomes

Define the objectives and desired outcomes of this program.

It's very common for people to begin listing 'things they can do'. This is a list of activities, but it is not a list of objectives and outcomes. Take time to really consider your written objectives and desired outcomes, in addition to activities, because it will provide you with the justification for all the work you will complete and the basis for an evaluation that will tell you if you made a difference.

What should the target audience learn and do as a result of your program?

Make sure these desired outcomes can be measured. Most often a pre and post survey (or a post-then-pre methodology) can provide the evidence that your effort made a difference. Examples include:

After the educational opportunity,

 More youth are wearing helmets when driving atv's.

 More fruit and vegetables are consumed daily by participants in the 'Dining with Diabetes' class.

 More farmers are soil testing before chemical applications

What are the desired short-term results?

Learning: awareness, knowledge, attitudes, skills, opinions, aspirations, motivations

What are the desired medium-term results?

Action: behavior, practice, decisions, policies, social action

What are the desired long-term results?

Behavior change of change of conditions: social, economic, civic,environmental

Figure 1. Examples of Educational Objectives and Outcome Indicators	
Educational Objectives	*Outcome Indicators*
10 migrant workers will attain "better housing."	1. Number of homes attained with insulation. 2. Number of homes with hot, running water. 3. Number of participants renting housing with standard plumbing.
30% of youth participants will reduce their use of vending machines to "save money" and "improve health."	1. Amount of money saved. 2. Number of participants saving. 3. Number of participants reporting fewer vending machine visits. 4. Percentage increase in fruit/vegetable consumption. 5. Percentage decrease in vending machine business.
15 dairy farmers will improve their farm income by 10% through "higher milk quality."	1. Percentage of dairy farmers who improve their farm income. 2. Number of farmers who have increased income. 3. Total increase in farm income. 4. Number of dairy farmers with no antibiotic residue in milk.

What is your timeline for achieving your outcomes?

Creating awareness happens more quickly than changing a behavior. Be sure to consider your desired outcome and allow enough time and effort to reach the objective.

4. Content/Subject Matter

Think about the content of the educational programming that will be needed to reach the desired outcomes.

You might want to freewheel, mind map or brainstorm with others to think about the content.

Avoid information overload. Too often we want to teach everything about a topic in one session. Instead, review your audience's characteristics and focus on priorities. Limit the number of desired outcomes to limit your content. Start thinking about how the information can be divided into different learning activities. Learners appreciate smaller chunks of information that are carefully grouped and delivered using a variety of delivery methods. If the education is in person, allow time for them to process what they're learning. What level of interaction is desired or needed between the leader and participants? Among the participants? Does this interaction need to be live? Face to face? If so, why? If not, how else can interaction take place?

Finally it may be time to think of a motivating title for your program. Just remember, no clever title or logo will overcome a poor program.

5. Training Tools/Activities/Outputs

Select appropriate output activities for the target audience.

Now it's time to think about how to teach this content and reach your desired outcomes.

How will you facilitate the learning process, not just provide information? How will you get the target audience involved in their learning and help them apply the information?

What are the best activities to teach this content, considering the content and the various learning styles of the target audience?

Workshops Meetings

Counseling Facilitation

Assessments Product Development

Media Work Recruitment

Training Self-study Experiments

Select appropriate specific training tools to carry out these activities.

Think about what a particular tool will and will not do and under what conditions it will work best. The latest technology may not always be the best for the content, the learners and your desired outcomes.

Select the teaching tools that can best work together to reach the desired outcomes for different learners:

DVD’s, Game-based learning

Publication/brochure PowerPoint/ News letters and news releases Web sites/webinars Videoconferencing and Social media

the teaching tools together for an educational package. Design the various teaching tools to reinforce concepts and fit together logically.

If this is a train-the-trainer program, decide who will train the program facilitators/deliverers and how they will be trained. Consider how you will evaluate outcomes with multiple facilitators as well.

Figure 2. Methods for Effective Program Delivery

These methods are shown as examples. This is not meant to be an exhaustive list.

Experiential	***Integrative***	***Reinforcement***	***Other Methods***
Method demonstration	Conference	Fact sheet	Mass media
Result demonstration	Seminar	Reference notebook	Photograph
On-farm test	Panel	Publication	Bulletin board
In-home test	Meeting	Poster	Show
Tour	Discussion group	Personal letter	Fair
Field day	Phone conversation	Newsletter	Exhibit
Workshop	Personal visit	Website	
Game Skit	Office visit		
Case study	OnlineContacs		
Role play	E-mail		
Food tasting			

Richardson, Jenkins, and Crickenberger, (1994).

6. Budget/Inputs

Estimate the cost of inputs, materials needed, activities involved.

What must be invested to develop and carry out the program? Include staff, volunteers, time, money, materials, equipment, technology and partners.

7. Marketing Plan

Develop a plan to market the program to the targeted audiences.

How will the target audience be made aware of and be encouraged to take part in this program? Why do they need this information? Think about outlets specific to the target audience. Where do these people already gather, or how do they prefer to get their information?

8. Implementation

Develop the training tools and carry out the program.

If the delivery method includes in-person meetings, consider:

Physical environment: Lighting, acoustics, temperature, distractions, writing space, seating arrangements, signage, parking, convenient access.

Psychological environment: Welcome learners personally as they arrive, have beverages and/or snacks, help learners feel confident about themselves and their learning ability.

Social environment: Help learners get acquainted with each other and with you, the educator, and provide opportunities for interaction throughout the learning experience.

Cultural environment: Be respectful of and sensitive to the cultural/ethnic diversity of learners and the values and experiences they bring to the learning situation.

If the delivery method is electronic, the physical environment becomes less important but the remaining elements continue to surface in your course design, interactive opportunities, and structure. Research indicates that encouraging active learning is key for all types of learning but how you structure this for an online experience is different than an in-person experience. For this first effort, you may want to develop a plan for an in-person opportunity and take time to learn more about educational design for online education before you plan an online opportunity.

9. Evaluation/Assessment

Were the desired outcomes met? How did the program make a difference for participants? Often this can't be measured for months or even years.

Steps in outcomes-based evaluation include:

Identify the objectives and desired outcomes. This was done in Step 3.

Specify evaluation standards (indicators). What constitutes a successful program? Design evaluation tools and methods.

Analyze the data.

Determine if your short-, medium- or long-term desired outcomes were met. Report the results.

No longer is the number of participants or their happiness with the program enough. The short-, medium- or long-term impacts on their lives are needed. If your program was designed to create awareness, then measuring increased awareness is the basis for your evaluation. If your program was designed to increase knowledge, then measuring knowledge gained is the basis for evaluation. If your program was designed to support action or a change of behavior, then more time must pass before you evaluate whether the desired

change was made. Be sure to align your evaluation tool with your desired outcomes.

10. Reporting

Summarize outcomes / impacts and develop a summary or an Impact Report to share with participants, partners and decision makers.

Each effort or organization may have its own method of reporting impacts or results. An example of using an Impact Report for NDSU Extension Service programming can be

How do you design health education program?

Date / Time	topics	Content	Instructional method	Instructional media	evaluation

Date / Time	topics	Content	Instructional method	Instructional media	evaluation