

DMU

*College of Health Sciences Department of
Public Health*

By

*Nakachew Mekonnen
(BSc PH, MPH HE & HP)*

March, 2012 E. C

Health and Human Behavior

Unit objectives

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

- Define human behavior.
- List components of behavior.
- Discuss factors that affect human behavior.
- Explain approaches of behavior change.
- Discuss types of health behaviors.

Introduction

- An important justification for health education and health promotion comes from the fact that health is determined,
 - not only by medical services and drugs,
 - but also by ordinary human actions and behaviors.
- Many health education programs have failed because they put too much emphasis on *individual behavior* and neglected to understand the **cultural, social, economic** and **political factors** that influence his/her behaviors or actions.
- A proper understanding of the influences outside the individual's control will avoid the pitfall of *victim-blaming* (poorly Planned health education program directs itself in Changing the individual behavior and ignores the factor Outside the individual's control that influence behavior).

E.g. advertising health-damaging products.

Behavior

Definition

- Behavior- is an *action* that has specific *frequency, duration, and purpose*, whether *conscious* or *unconscious*.
- It is associated with practice.
- It is both the act and the way we act.
 - *Action* – **drinking/smoking**
 - To say a person has drinking/smoking behavior
 - *Duration* it for a week/month
 - *Frequency*- how it is repeated
 - *Purpose* –is he/she doing consciously or not
- **Is cigarette smoking a behavior? Why?**

Behavior components

Basically our behavior has 3 domains

A) Cognitive domain- “stored information”

- Knowledge
- Perception
- Thinking

B) Affective domain- cognition +feeling (connation)

- ❖ Attitude
- ❖ Beliefs
- ❖ Value

C) Psychomotor domain

- Psycho- mind
- Motor – action

Health Behaviors

- In the broadest sense, *health behavior* refers to the **actions** of individuals, groups, and organizations, as well as their determinants, correlates, and consequences, including social change, policy development and implementation, improved coping skills, and enhanced quality of life

(Parkerson and others, 1993).

- *Health behavior* as “those personal attributes such as beliefs, expectations, motives, values, perceptions, and other cognitive elements; personality characteristics, including affective and emotional states and traits; and overt behavior patterns, actions, and habits that relate **to health maintenance, to health restoration, and to health improvement**”

(Gochman, 1982, 1997).

- It includes not only observable, overt actions but also the mental events and feeling states that can be reported and measured.

Types of health behaviors

Broadly health behaviors can be classified as follows.

1. Promotive behaviors

- Physical exercise,
- Reduction/cessation of unhealthy practices (cigarette smoking and excessive alcohol consumption)

2. Preventive behaviors. Condom use

3. Utilization behaviors

- Is concerned with utilization of health services (ANC utilizations)

4. Illness behaviors

- People take action before consulting health care workers, including:
 - recognition of early symptoms and prompt self-referral for treatment before the disease becomes serious,
 - Taking home remedies (self-medication),
 - Consulting family and healers

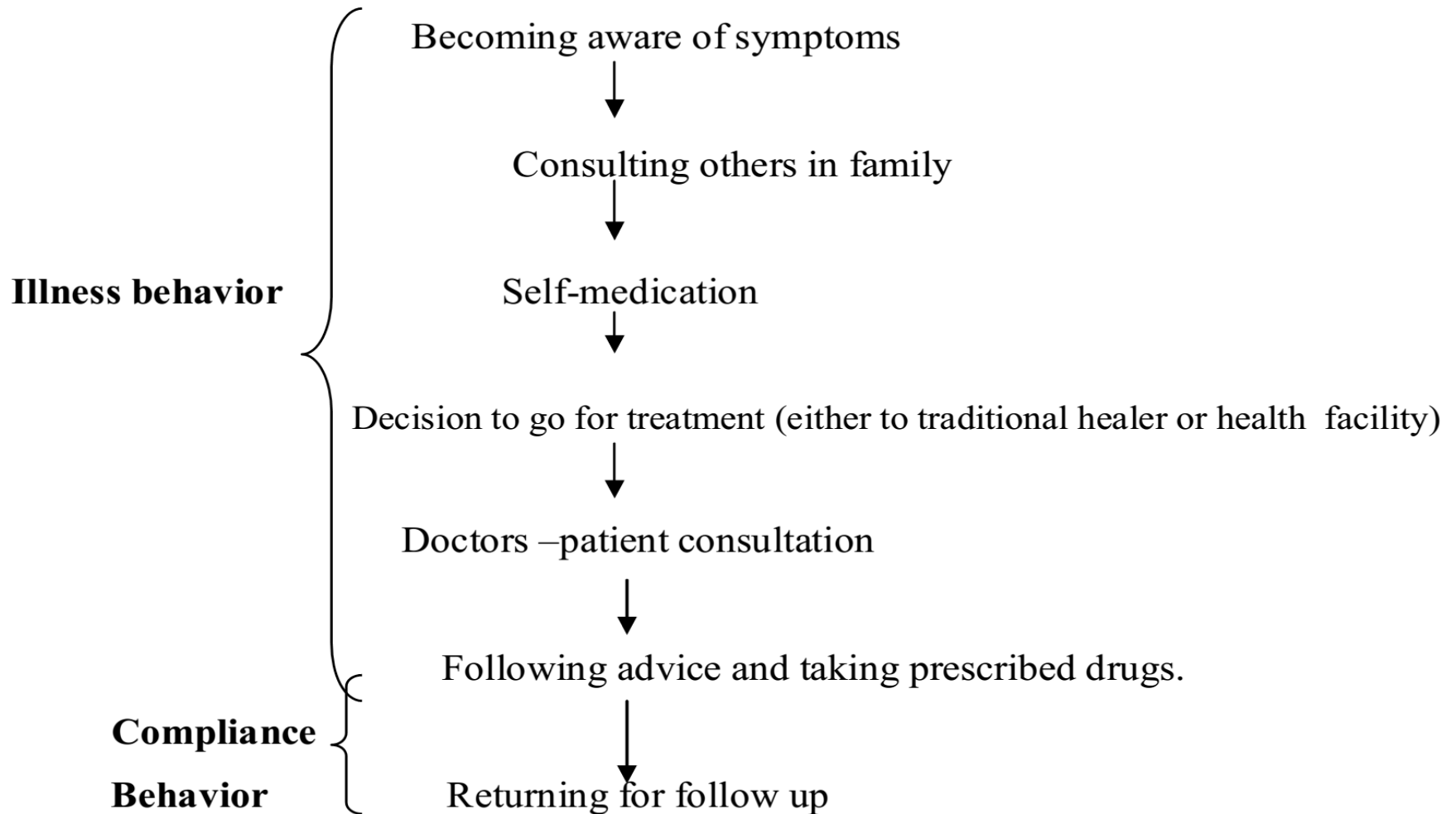


Fig 2.2: stages in illness behavior

Source: Dr. John Hubley, 1993

5. Compliance behaviors

- A behavior following a course of prescribed drugs (taking too much drug or too less or no drug because of severity and short recovery).
 - Best example is TB –prolonged drug use.

6. Rehabilitation behaviors

- A type of behavior that prevent further disabilities after a serious illness.

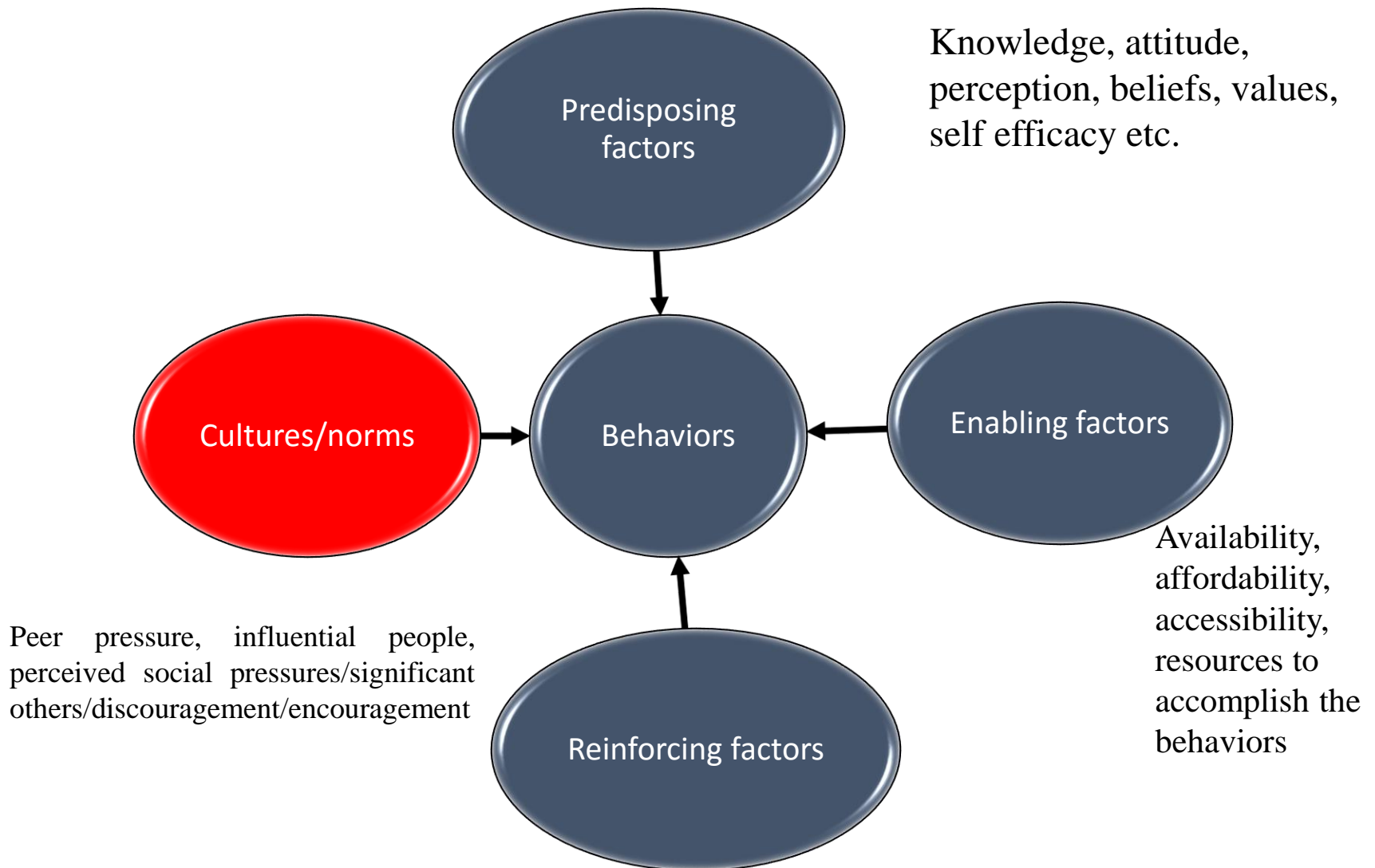
7. Community action

- Action undertaken by the individuals and groups to *change* or *improve* their surrounding to meet special needs.
 - E.g., Community participation in installation of improved water supply.

Factors Affecting Human Behavior

- Behavior is viewed as being **affected** by, and **affecting**, *multiple levels of influence*.
 - Five levels of influence for health-related behaviors and conditions have been identified:
 - Intrapersonal, or individual factors;
 - Interpersonal factors;
 - Institutional, or organizational factors;
 - Community factors; and
 - Public-policy factors
- (McLeroy, Bibeau, Steckler, and Glanz, 1988).**

Cont'd... Factors



- Each of which has a different type of influence on behavior:

2.3.1. Predisposing factors

- Are *antecedents or prior* to behavior that provide the rationale or motivation for the behavior to occur.
- Factor include
 - ✓ *Knowledge -Confidence/self-efficacy*
 - ✓ *Perception - Outcome efficacy*
 - ✓ *Belief -Behavioral intention*
 - ✓ *Attitude –Values*

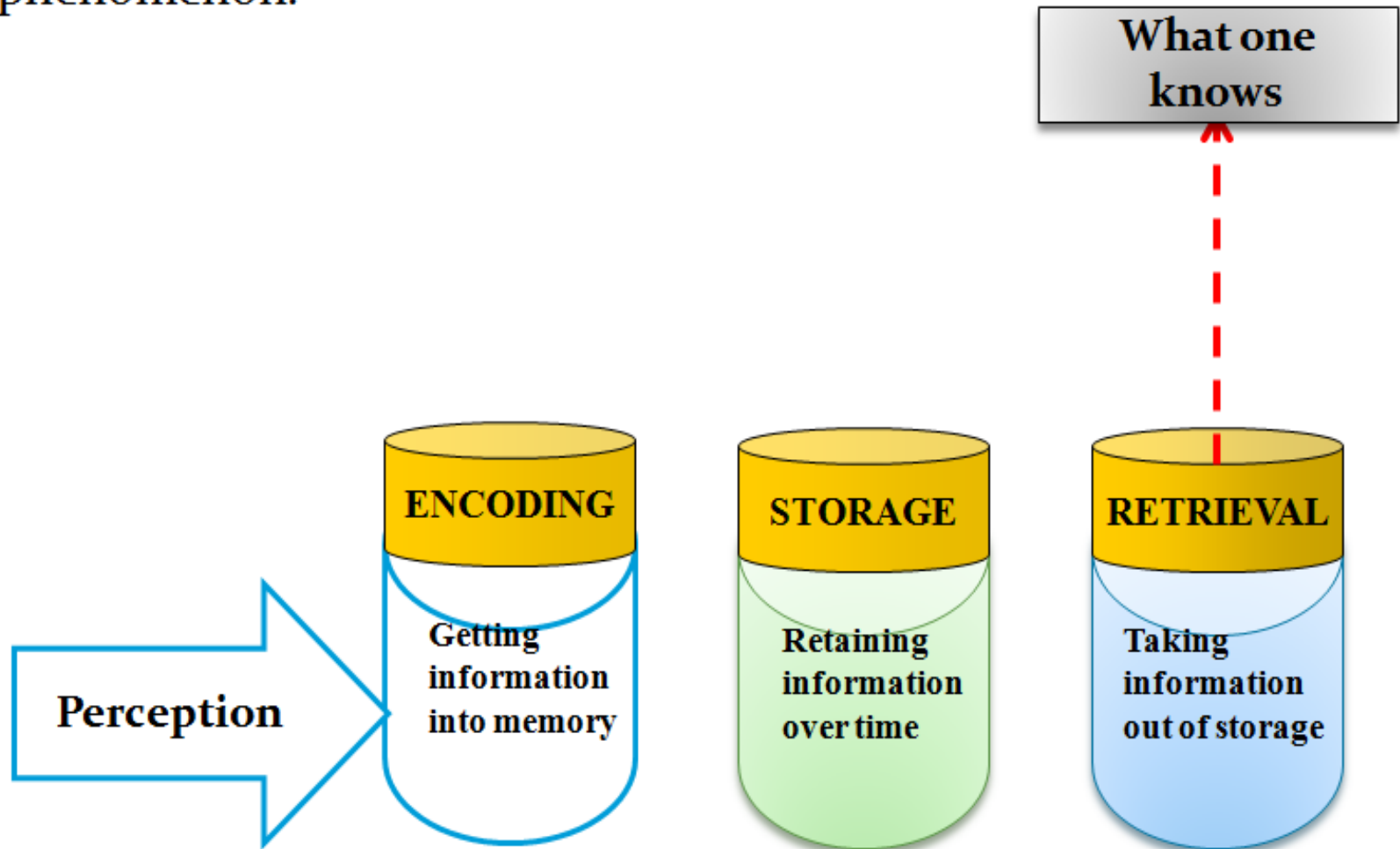
Knowledge or awareness

Definition:

- .
- **Knowledge** is, “A clear and certain mental **perception**, understanding, the fact of being aware of something, experience of acquaintance or familiarity with information of, learning that which is known, facts learned or study of.”
- Knowledge is, knowing things, objects, events, persons, situations and every thing in the universe.
- It is the **storage** of information or experience in the brain, and the **means** of acquiring knowledge of the brain is by *perception*.

- Knowledge can, therefore expressed by a formula .
Perception + Storage of information in the brain = Knowledge
- Knowledge is acquired through our sensory organs,
and
- All the sensory organs have a cumulative or augment effect on knowledge gained.

- ✓ knowledge can be viewed as an accurate impression of some phenomenon.



- Generally, health knowledge of some kind is necessary before conscious personal health action can occur,
- The desired health action will probably not occur unless a person receives a cue strong enough to trigger the motivation to act on that knowledge.
- To sum up, behavior may not change immediately in response to a new awareness or knowledge,
- Cumulative effects of heightened awareness, increased understanding, and greater command (recall) of facts can seep into the system of beliefs, values, attitudes, intentions, and self-efficacy and eventually into behavior or action.
- Knowledge is *necessary* but not *sufficient* in behavior change.

- ***Perception:*** is
 - giving meaning and interpretation of data and information received by the five sense organs .
 - ✓ A process by which individuals organize and interpret their sensory information in order to give meaning it.
- **Perception is a means** of acquiring knowledge.
- And it is highly subjective

Perception is subjective And it influences knowledge



Attitude

Definition:

- One of the vaguest yet most frequently used and misused words in the behavioral sciences is *attitude*.
- Attitude is “a tendency of mind or of a relatively constant feeling towards a certain category of objects, people, or situation.” (Mucchielli ,1 970)
- Luis Thurston(1928)-a social psychologist views attitude as
 - “a sum total of man’s inclination and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and conviction about any specific topic.”

Attitude is:

- Affect for or against
- Evaluation of
- Like or dislike
- Positive-ness or negative-ness toward a psychological object.

Characteristics of attitude

In order to develop inclination:

1. **Predisposition-** exposure related to an attitudinal object.
 - e.g. It is not sensible to ask about the attitude about Condom for those who do not know it (not predisposed).
2. **Has directions-** polar, +ve or -ve, good or bad.

3. **Evaluation-** can be evaluated by intensity or judgment.
 - **e.g. Favorable or unfavorable**

4. **Changeability-** can be changed, adopted, modified, not static. It is not absolutely constant rather it is relatively constant so can be changed.
 - E.g. our attitude towards cigarette smoking can be changed as we grow up from childhood to adulthood.

5. **Stability or consistency.**
 - Stability=related to time
 - Consistency= the sameness of attitude
 - e.g. “Mood” changed quite often.

Components of attitude

- Every attitude has three components that are represented in what is called the **CAB model of attitude** :

1. Cognitive component - the way we perceive, think, believe and qualities about people, objects, events, activities, and ideas. in Cognitive component Many times a person's attitude might be based on the negative and positive points they associate with an object.

- e.g. some one believes that all snakes are dangerous and uncultured.

(free encyclopedia)

Cont'd.....Components

2. *Affective component*- refers to the emotional reaction one has toward an attitude object.
- Affective responses influence attitude in a number of ways(such as like, dislike, love, fear, anger, etc.) when someone - who has a phobia of snakes a snake is an attitude object.
 - Whenever she is exposed to a snake - whether she sees one or thinks about one she feels extreme anxiety and fear.

Cont'd.....Components

3. ***Behavioral component*** it refers to the way one **acts** or **do** when exposed to an attitude object. Think about Aster and her snake phobia again. We already identified the affective component of her attitude towards snakes - fear and anxiety. How do you think she behaves when it comes to snakes? Most likely, she avoids them whenever possible. If she does see one, she probably calls or cries.

(free encyclopedia)

Functions of attitude

- Another classic view of attitude is that attitude serve particular functions for individuals.
- **Attitude can serve as:-**
 - ❏ **Helpful or instrumental function;** help us to maximize rewards and minimize costs. attitude may help us to gain approval and acceptance from others, hence, may enable us to adjust ourselves in a society.
 - ❏ **Knowledge function;** enabling to make sense and understand the world around us

Cont'd functions

■ **An ego-defensive function**; protect people from becoming aware of harsh, uncomfortable truths about themselves or their world. though understands **reality and logic**

e.g., Projection, Rationalization

■ **A value-expressive function**. Such attitude enable us to demonstrate our uniqueness, and what is important to us such as religion, art, clothing etc.

(**Daniel Katz**)

Formation of attitude

- Formation of attitudes are *not merely self-generating* they involve interpersonal relations.
- There are internal as well as external factors involved in the formation and change of attitudes.
 - The internal factors refer to the motives of the individual, perceptions, ideas, values, and so on.
 - The external factors refers to the customs, other's attitudes, values, superstitions in the community which he or she receives from others.
- All attitude are learned, and our attitude vary based on our experiences and learning environment.

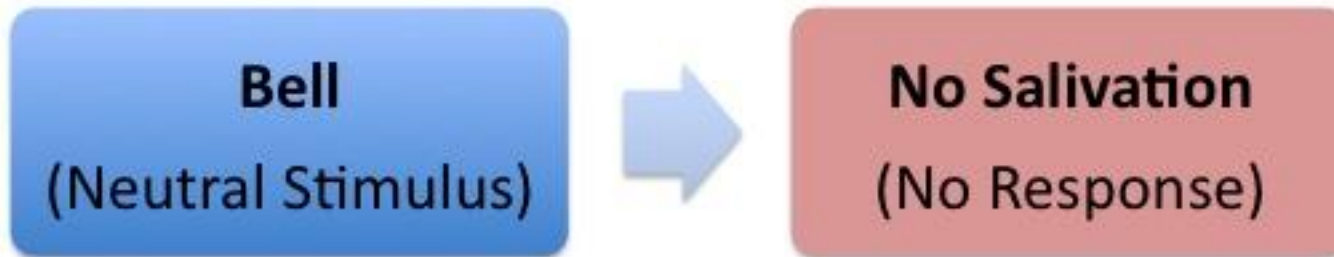
Attitudes are formed through:

- 1. Mere exposure**— through direct and repeated exposure of an object /event.
- 2. Classical conditioning:** by associating neutral stimulus with unconditioned stimulus;

(**Ivan Pavlov**)

Pavlov's Dogs

Before Conditioning



During Conditioning



After Conditioning



Cont..

Before conditioning

**FOOD
(UCS)**

**SALIVATION
(UCR)**



BELL

NO RESPONSE



During conditioning

**BELL +
FOOD
(UCS)**

**SALIVATION
(UCR)**



After conditioning

**BELL
(CS)**

**SALIVATION
(CR)**



3. Operant conditioning- through reward /punishment that enhance the outcome;

- **For Example**, by rewarding smiles approval, or hugs for stating the “right” views, parents and others play an active role in shaping youngsters’ attitude.

(B. F. Skinner)

4. **Observational learning:** is the learning that takes place through watching or observing others.
5. This type of learning is often included in a style of progressive education.

have four stages

1. Attention

2. Retention

3. Production

4. Motivation

(Albert Bandura)

5. **Social comparison** – by comparing our selves with others we like or admire, we often accept the attitude they hold and behave in a similar way with them.

 6. **Self-perception** – attitude from the information what we have about ourselves.
- **So, attitude can be formed from one's own and other people's experience.**

Practice

- The words *behavior*, *action*, and *practice* are different words of the same thing.
- So, **KAP** study can also be called **KAB** (Knowledge, Attitude, and Behavior) or **AAA** (Awareness, Attitude, Action).
- All living things from the tiniest microbe display different types of activities to support their life.

- These activities can be:
 - 1 . *Voluntary* (purposeful)
 - 2. *Involuntary* (not purposeful)
- In health education when ever we talk of behavior we refer only to those **voluntary movements** and **purposive acts**.
- On the other hand, the unconditioned reflex, like withdrawing a finger from the fire are not to be considered under the patterns of behavior,
- Often closely following knowledge is attitude.

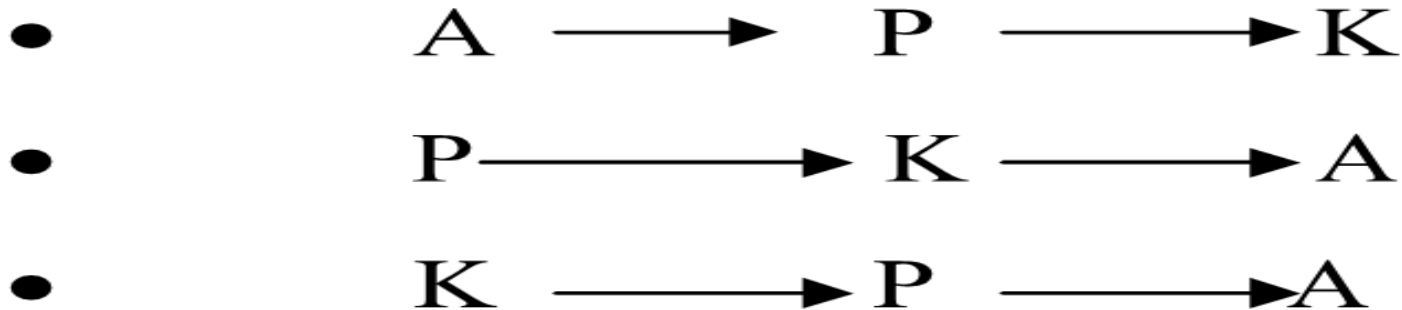
Sequential relationship among KAP

- With the knowledge or information that we have on things, objects, persons, events, etc. the mind is able to develop a sense of like or dislike, pleasure or pain, joy or sorrow, positiveness or negetiveness etc.
- Feelings which are experienced by the mind and which make the person evaluate the attitudinal object as favorably or unfavorably.
- **Feeling component** added to the **K** which keeps the individual react to a stimulus positively or negatively.
- Attitude can, therefore, be expressed by the formula:

$$*Knowledge + Feeling = Attitude*$$

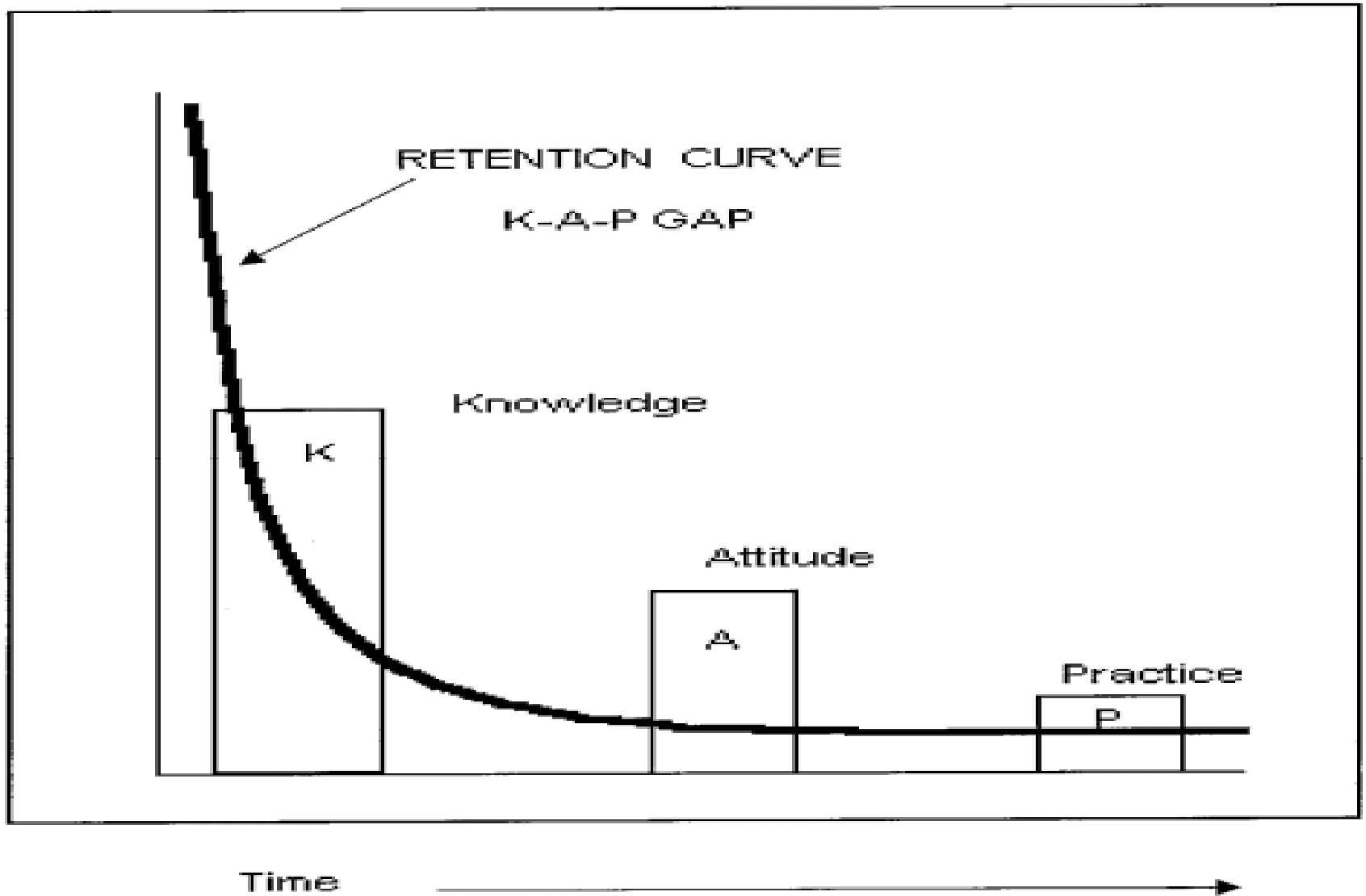
- The general trend or normal way of thinking and acting the proper sequence and linkage among **knowledge, attitude, and practice /KAP/** is that **K** is followed by **A** and then **P**.
- But, different possibilities and combinations can come across **KAP**.

- For example.



Notice:

- When **P** or **A** precedes **K**, it is due to either an imitation or compulsion.

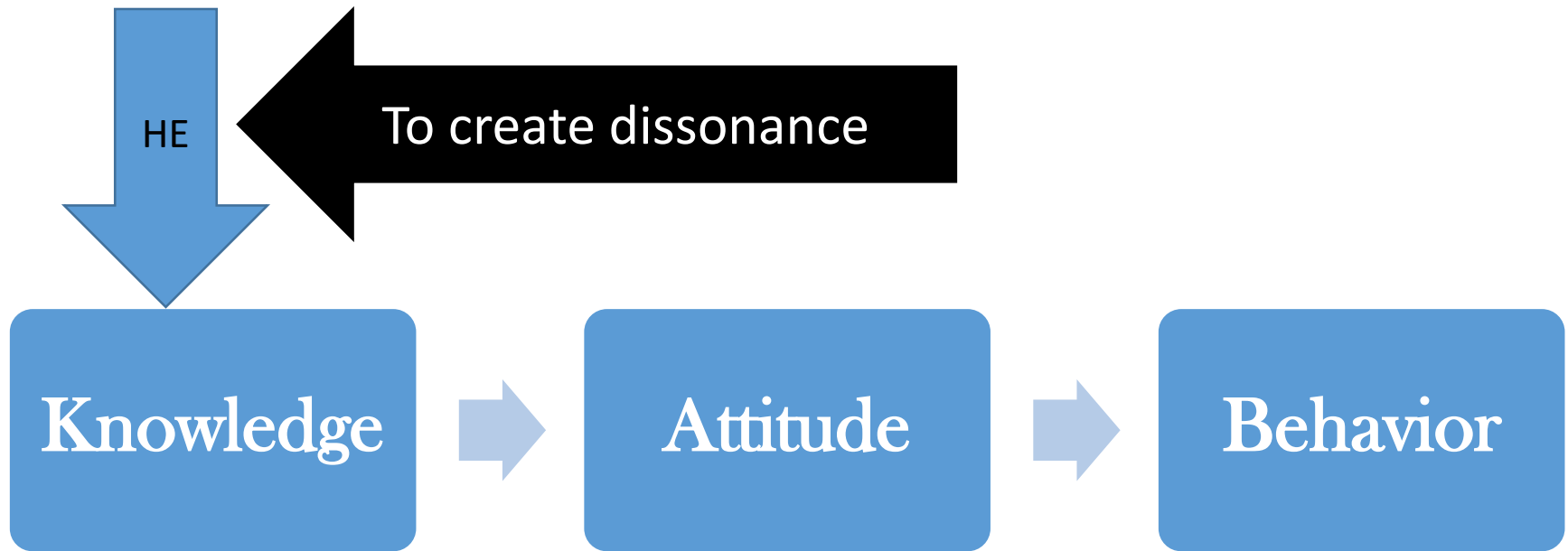


- In health education, we try to close these gaps by helping people to practice at least what they know.
- **Apply cognitive consistency theory**
- States people prefer to be consistent in their knowledge, attitude and practice.

“Happiness is when; what you think, what you say and what you do are in harmony”

Mohandas Gandhi

- New information creates **dissonance** between knowledge, attitude and behavior and this stimulates alternation in their behaviors consistent with knowledge and attitude.



Belief

Definition:

- Faith, trust, and truth are words used to express belief.
- Belief is ‘trust’ or ‘confidence’ or something regarded by a person as truth. It also refers to a conviction that a phenomenon or object is true or real.
 - E.g. Health oriented beliefs include: “I don’t believe that medication can work.”, “exercise can make a difference.”
- Derived from parents, grand parents, and other people we respect to listen and are accepted as true.
- But we accept beliefs without trying to prove that they are true or false.
- Beliefs are as different with respect to every country and community.

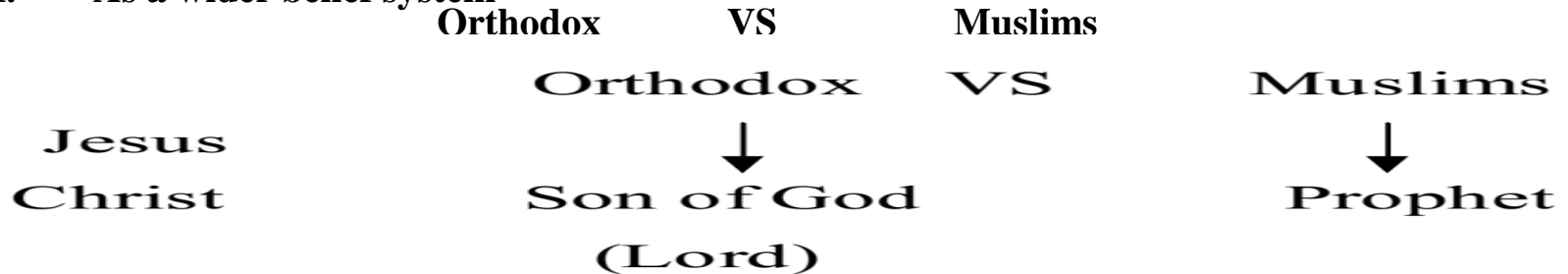
Belief formation

Beliefs can be formed at:

I. Individual, group, or community experiences

- E.g. among the group belief taking some people in a certain area and showing the use of latrine.

II. As a wider belief system



III. Primary socialization

- E.g. when ever you 1st socialize (up to 5 years) if you see some people around you eating snake or pork meat you will develop a belief.

IV. Peers

- e.g. if , Mr. X tells to his college friend Mr. Y, chat chewing makes you alert and increase your concentration during studying, Mr. Y may develop this belief and act up on it.

V. Mass media, teachers, written materials, etc.

Difficulty index of changing beliefs.

- It is usually easier to influence those beliefs that:
 - ✓ are held by individuals
 - ✓ have been acquired recently
- And it is usually difficult to change those beliefs that
 - ✓ are held by the whole community
 - ✓ Have been deep rooted in the culture
 - ✓ Come from highly respected and trusted sources
 - ✓ Are part of the a religion or traditional medical system

Types of beliefs

- As beliefs can be held very strongly, they are often difficult to change.
- And one big wrong is that the health workers themselves believe that any traditional belief is bad and must be changed.
- So, health workers must categorize beliefs in advance as *harmful, neutral and useful*.

Notice:

- If you are unsure that a belief is harmful, it is better to leave as it is because if too many of their beliefs are challenged people may anger at you and not cooperate with you.
 - For example, if the beads around a growing child's arm are tight and making the child loses weight, it is possible for you to tell the mother to hang it loosely rather than challenging the belief.

Relationship between beliefs and attitudes

- Our beliefs about things affect the way we think about them. Our beliefs, in turn, are influenced by our attitudes.
- The judgment as *good or bad* and *worth* carrying out a behavior will depend on the beliefs about the *consequences of performing the behavior*.

Generally,

- Beliefs perceived to have **good outcomes +ve attitude**
- Beliefs perceived to have **bad outcomes -ve-attitude**
 - For example, mothers (+ve) & (-ve) believe on breast feeding.
- Overall, if beliefs that performing the behavior lead to mainly to good outcomes, **then the attitude will be favorable**, and outcomes of performing the behavior are perceived as mainly bad, **the attitude to the behavior will be unfavorable**.

- On the other hand, a mother who believe that breast milk is a good nutrient for the child, is more likely (+ve attitude) to breast feeding her child than who do not believe (-ve attitude)..

Attitude  *beliefs*

- Generally, a person with lots of positive beliefs and only a few negative beliefs about psychological object is judged to have positive attitude and vise versa.

Value

Definition

- Every individual places or gives a relative worth to every thing around. This worth or preference or judgment is *value*.
- Value “something is held to be important or worth; and prized by an individuals or community.”

The Oxford English dictionary

- Usually values are qualities at an abstract level.

Value exert strong and enduring influence on behaviors. It provides general guides to behaviors.

- A person values might be reflected in the way..: ‘*things that are important to me are...*’
 - Examples of characteristics that can be valued by the communities include:

- ❖ *Being a good mother*
- ❖ *Being approved by friends*
- ❖ *Being attractive to opposite sex*
- ❖ *Being a man of God*
- ❖ *being healthy*

- *having many children/cattle*
- *masculinity and sexual prowess*
- *academically success*
- *success in foot ball events*
- *being ‘modern’*

- *Health* is only one of the many possible values and a person may feel that other values such as *fame*, *wealth* or *respect* in the community may be more important, and a person may have his/her own individual values.

- However, usually values are parts of a culture and shared at a community or national level.
 - Values that have advantages for the self and for the society are known as **positive values**.
 - Values that are harmful and disadvantageous are known as **negative values**.

Criteria of value

To call it value there should be:

1. Free choice
2. Alternatives
3. Selection by
4. Proud of selection
5. Accept openly/frankly
6. Act upon it
7. Act consistently

Value conflict and value clarification

- People value life, health. However, in opposite engaged in unhealthy behavior, for instance, smoking.
- This reveals **conflict of values = inconsistencies *between two or more values.***
- HE/HP programs one shouldn't seek to change values rather should help people recognize *inconsistencies* between and among their values.

- But we can some times bring about changes by emphasizing *values which don't involve health*.
 - For example,
 - Persuading a person to build a latrine by emphasizing the benefits of privacy or being considered as modern by one's own neighbors.
- As, one aim of health education, (WHO expert committee in 1954), is to promote health as a valued asset in the community, health educators, are often trying to encourage people to think about their values.
 - The process is *value clarification* and usually carried out through small group discussion.

Relationship between attitudes and values

- Value is a *primary* construct in virtually every branch of social sciences' theory and research.
- There are *fewer* consensuses regarding the definition of value than attitude.
- Partly this is because:
 - 1) Value is used in different ways and for different theoretical purposes from discipline to discipline.
 - 2) Value is more abstract construct and broader to conceptualize than attitude.
- Values are more *permanent* and *resistant* to change than attitudes and beliefs. So, in terms of difficulty of changing:

Beliefs < attitudes < values

- Even if values are more abstract and higher order construct than attitude, but like attitudes, they involve *evaluation*.
- *Values cause and/or determines attitudes.*
 - For example, if an athlete values privacy and independence but disvalues, structures she may have more positive attitude towards individual sports than towards group sports.
- There is no a one-to-one relationship between *a particular attitude* and *a particular value*. Rather a single attitude is caused by many values.
 - E.g., If an individual is shopping for a new car.

- **Individual 's sense of agency:** *believes about ones own ability to perform the behavior and its effectiveness*
1. **Outcome efficacy (outcome expectation):** the beliefs that undertaking the behaviors will bring a desired health benefit.
 - Example, the belief that taking a prescribed medication will reduce your pain.
 2. **Self-efficacy or self-confidence:** It is your belief in your ability or competence to perform a behavior.
 - For example, can you remember to take the medication? And can you discipline your self to exercise regularly?
 3. **Behavioral intention-**is the willingness to perform a certain behavior provided that the enabling factors are readily available.

2.3.2. Enabling factors

- Enabling factors are those *antecedents* to behavior that facilitate a motivation to be realized.
- Help individuals to choose, decide and adopt behaviors and may be barriers and assets to needed changes.
- This category of factors includes
 - The health-care environment
 - *Availability*
 - *Accessibility*
 - *Affordability*
 - New skills
 - Resources. E.g. *Time, money, transportation etc.*

Cont'd..... Enabling

- Some times a person may intend to perform but still not do so.
- This is because of the influence of enabling factors such as time, money, equipment, skills and health services.
 - Example (1): enabling factors for a mother to give ORS to her child with diarrhea could be: **time, containers, salt and sugar and skill how to prepare and administer it.**
- When the public make the effort to follow your health education you should ensure that the required services (enabling factors).

Resources

- Facilities, money, time, labor services, skills, materials and the distribution and their location also affect people's behavior.

2.3.3. Reinforcing factors

- Reinforcing factors are those factors *subsequent* to a behavior that provide the continuing reward or incentives for the behavior to be **persistent** and **repeated**.
- Are those consequences of actions that determine whether the actor receives positive or negative feedback and is supported socially or by significant others *after* it occur.

Significant others

Definition

- Can also be called *relevant others* or *influential others*.
- These are people who are significant (determine or influence) the behavior of others to encourage or discourage to do something.
- We often listen to what he or she says and tries to do what he or she does.

Among these important people:

- elders, friends, parents, grand parents, village/ religious leaders and
- people with a lot of experience and skills (teachers, health workers, etc.).
 - The woman does not adopt FP because her husband disapproves.
 - The young man who starts smoking b/se his friends encourage him to do so.
- Whether to repeat or not the already started health practice is partly determined by Subjective norm (Perceived social pressure):
 - (1) Beliefs about whether significant People in the social network wish a person to perform a behavior and
 - (2) the importance attached by the person to conform to the significant people.

Friends

Mother/father

employer

Husband/wife

political leaders

Brothers/sisters

chiefs

Parent-in-law

religious leaders

Grand parents

traditional healers



man

Health workers

Fig 2.1. The influence of social pressure (circle of influence)

Source: Dr. John Hubley, 1993

- Any behavior will generally fall under two categories:
 - A behavior by which an individual has to satisfy a need or a want and
 - A behavior which becomes necessary on the part of the individual to become and remain an accepted member of the group or society to which he belongs.
- Significant may also vary according to the setting.
 - At home –mother
 - At school - teacher

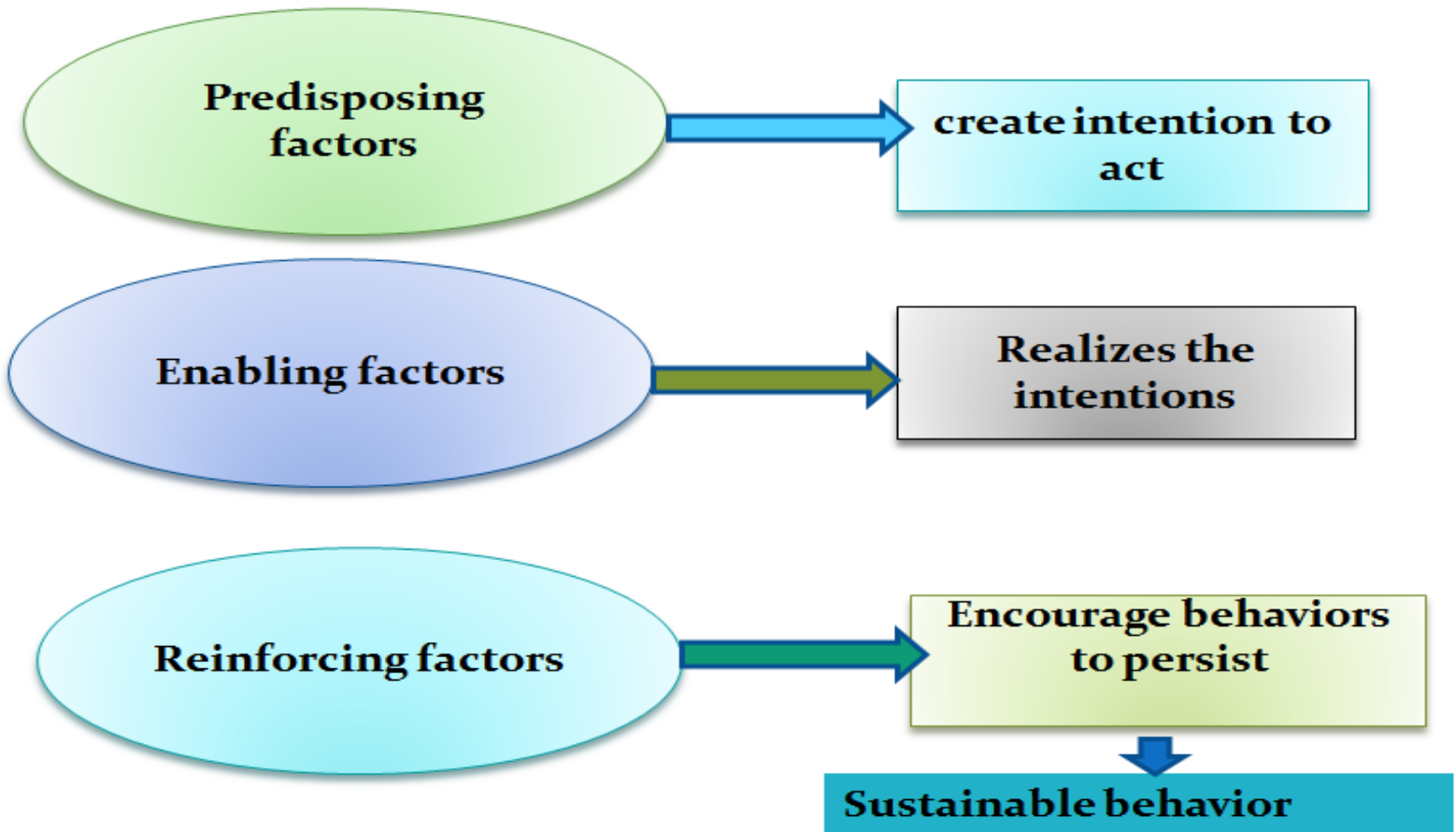
2.4. Changes of Behavior.

- Our behavior changes all the time, some are *natural* while others are *planned* changes.
- Natural changes: When changes occur because of natural events in the community around us, we often change with out thinking much about it
- Planned changes: When changes occur deliberately and/or planned.

2.5. Behavior change approaches

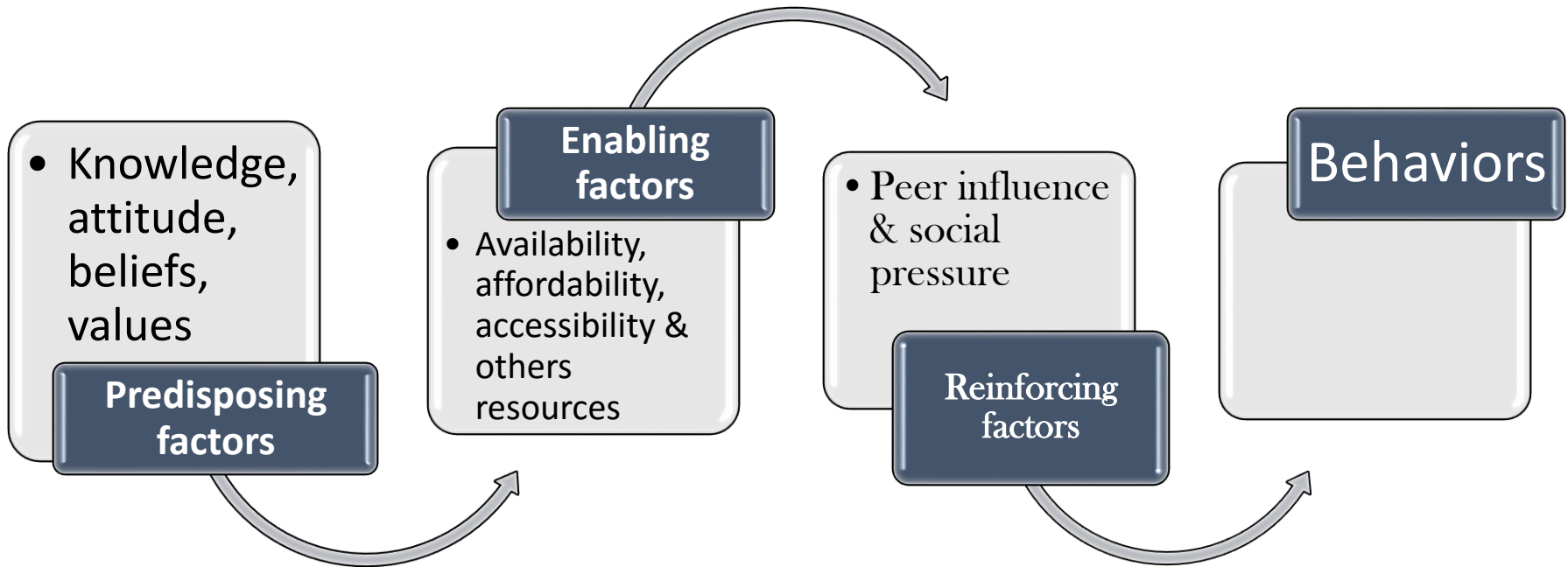
- **The persuasion approach:**-the deliberate attempt to influence the other person to do what we want them to do. ('directive' approach or, when done forcefully, coercion).
 - Is used in situations **where there is serious treat** such as epidemics and natural disasters, and the actions needed are **clear-cut**.
- **The informed decision making approach:**- giving people information, problem solving and decision-making skills to make decision but leaving the **actual** choice to the person ('open' or 'non-judgmental' approach).
 - Is used with groups who have been disadvantaged or oppressed by promoting awareness-'conscious-raising' and 'building confidence' that they have the power to make *their appropriate* decisions and control their own lives called **empowerment**.

Summary of factors affect human behaviors



Remember: Any given behavior can be explained as a function of the collective influence of these three factors

Theoretical sequence to address determinants of behaviors



In practice simultaneously

Educational approaches to behavior change

Determinants of behaviors

- **Approaches to change**

Predisposing factors

- Direct communication with target individuals- educational approaches

Enabling factors

- Organization change, avail services, accessibility, advocacy , resource mobilization

Reinforcing factors

- In direct communication with the social environments , influential peoples

Role of behaviors in disease prevention

Primary prevention

- Promotive behaviors
- Preventive behaviors
- Utilizations behaviors
- Community actions

Secondary prevention

- Illness behaviors
- Compliance behaviors

Tertiary prevention

- Rehabilitation behaviors

References

1. Lawrence W. Green et al. 1980. **Health education planning a diagnostic approach**
2. Randall R. Cottrell, James T. Girvan, James F. McKenzie 2006. **Principles & foundations of health promotion and education**. Third ed. USA.
3. Bruce G, Walter H, Nell H. Introduction to Health education and Health promotion; 2nd edition, 1984
4. Ramachandran L. and Dharmalingam. T. 1995. **Health education's new approach**.

ABILITY

is what you're capable of doing.

MOTIVATION

determines what you do.

ATTITUDE

determines how well you do it.

Lou Holtz



*A SMALL TRUTH TO MAKE
LIFE 100%*

If

A B C D E Y Z

is equal to

1 2 3 4 5 25 26

Hard Work

H+A+R+D+W+O+R+K

$$8+1+18+4+23+15+18+11 = 98\%$$

Knowledge

K+N+O+W+L+E+D+G+E

$$11+14+15+23+12+5+4+7+5 = 96\%$$

Love

L+O+V+E

$$12+15+22+5 = 54\%$$

Luck

L+U+C+K

$$12+21+3+11 = 47\%$$

(don't most of us think this is the most important ???)

Then what makes 100% ?

Is it Money ? ... NO !!!

M+O+N+E+Y

$$13+15+14+5+25 = 72\%$$

Leadership ? ... NO !!!

L+E+A+D+E+R+S+H+I+P

$$12+5+1+4+5+18+19+9+16 = 89\%$$

*Every problem has a solution, only if we possibly
change our attitude.*

To go to the top, to that 100%

what we really need to go further... a bit more...

ATTITUDE

A+T+T+I+T+U+D+E

1+20+20+9+20+21+4+5 = 100%

**It is OUR ATTITUDE towards Life
and Work that makes OUR Life
100% ! ! !**



***Change Your Attitude ...
And***

***You will Change Your Life !!
!***

References

- *Ajzen, I. 2001. Nature and operation of attitudes. Annual Review of Psychology, 52: 27-58.*
- *Petty, R. E., Wegener, T. T., & Fabrigar, L. R. 1997. Attitudes and attitude change. Annual Review of Psychology, 48: 609-647.*
- *Shaw, M. E., and Costanzo, Ph. R. (1982). Theories of Social Psychology.*
- *Vander, Z. J. W. (1987). Social Psychology. (4th edition)*