Behavioral Science

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Few terms related to behavioral science

- **Sociology:** Sociology deals with the study of human relationships and of human behavior for a better understanding of the pattern of human life.
- **Medical sociology:** It is defined as professional endeavor devoted to social epidemiology, the study of cultural factors and social relations in connection with illness, and the social principles in medical organization and treatment.
- **Anthropology:** The word anthropology is derived from the root words, "Anthropos" meaning man and "logos" meaning science. It is the study of the physical, social and cultural history of man.

Few terms related to behavioral science

- **Psychology:** It is defined as the study of human behavior- of how people behave and why they behave in just the way they do. It is concerned with the individual, his personality and behavior.
- **Culture:** It is defined as learned behavior which has been socially acquired. Culture is transmitted from one generation to another through learning processes. Culture stands for the customs, beliefs, laws, religion and moral percepts, arts and other capabilities and skills acquired by man as a member of society.
- **Customs:** It is defined as the shared cultural practices, beliefs or behaviors that are widely followed within a group or society.

Behavior

- Behavior is the **manner of acting or of conducting** one self.
- Human behavior is the result of **physical and mental factors** interacting in complicated ways.
- Behavior is the **total reactions of an individual** accessible to external observation.
- Thoughts and understanding are implicit behavior which are observable not directly but solely by inference from other observable behavior.

Types of behavior

a. **Health behavior:** Refers to those **activities people undertake to avoid disease** and to detect asymptomatic infections through appropriate screening test.
b. **Illness behavior:** Refers to **how people react to symptoms**. Generally, people who detect symptoms will wait to see if symptoms persist or worsen. If continues, the affected person seek medical help.
c. **Treatment behavior:** Refers to those **activities used to cure diseases and restore health**. It is important for patients to take medication as directed, return for tests for cure and cooperate in efforts to identify untreated cases.

Family

- The family is a **group of biologically related individuals** living together and eating from a common kitchen.
- It differs from household in that all the members of a **household may not be blood relations** e.g. servants.
- As a **biological unit**, the family members share a pool of gene.
- As a **social unit**, they share a common physical and social environment.
- As a **cultural unit**, the family reflects the culture of wider society.
- Family is also an **epidemiological unit** and **unit for providing social services**.

Family life cycle

- **Basic model of a nuclear family life cycle: 6 phases**

Phases of cycle	Beginning of phase	Ending of phase
Formation	Marriage	Birth of 1st child
Extension	Birth of 1st child	Birth of last child
Complete extension	Birth of last child	1st child leaves home
Contraction	1st child leaves home	Last child left home
Complete contraction	Last child left home	1st spouse dies
Dissolution	1st spouse dies	Death of survivor

Types of family

- There are **three main types** of families:
  i. **Nuclear family:** It consists of married couple and their dependent children.
  ii. **Joint or extended family:** It consists of a number of married couples and their children who are blood related and sharing common properties.
  iii. **Three generation family:** It consists of the representatives of three generation i.e. married couples, their children with spouse and grand children.

Function of family

- **Residence**
- **Division of labor**
- **Reproduction and bringing up of children**
- **Socialization**
- **Economic functions**
- **Social care:** Giving status in a society; protecting its members fro insult or defamation; regulating marital status; regulating to a certain extent political, religious and general social activities; regulating sex relations through incest-taboos.

Family in health and disease

- **Child rearing**
- **Socialization:** It refers to the process whereby individuals develop qualities essential for functioning effectively in the society in which they live. It is a latent function.
- **Personality formation:** The family acts as a **"placenta"** excluding various influences, modifying others that pass through it and contributes some of its own in laying the foundation of physical, mental and social health of the child.
- **Care of dependent adults:** Care of sick and injured; care of pregnant and post-partum women; care of aged and handicapped.

Family in health and disease

- **Stabilization of adult personality:** The family is like a **"shock absorber"** to the stress and strains of life like injury, illness, births, deaths, tension, emotional upsets, worry, anxiety, economic insecurity. Certain chronic illnesses such as peptic ulcer, colitis, high blood pressure, rheumatism, skin diseases are accepted as **"stress diseases**.
- **Family susceptibility to disease:** Certain diseases such as **haemophilia, colour blindness, diabetes and mental illness** are known to run through families. The family is also playground for **communicable diseases** as tuberculosis, common cold, scabies, diphtheria, measles, mumps, rubella, chickenpox, dysentery, diarrhoea, and enteric fever.

Family in health and disease

- **Broken families:** Where parents have separated. Children from these families may drift away to prostitution, crime and vagrancy.
- **Problem families:** Problem families are those which **lag behind** the rest of the community. In these families, the standards of life are generally far below the accepted minimum and parents are unable to meet the physical and emotional needs of their children. These families are recognized as **problems in social pathology**. Florence Nightingale had said : **"the secret of national health lies in the homes of the people"**.

Doctor-patient relationship

- Besides technical competence, the doctor must know how to communicate with his patient.
- In fact, a successful doctor is one who knows how well to communicate with his patient.
- In this regard, **three levels of communication** have been described*:*
  - ✓ Communication on an ***emotional plane***
  - ✓ Communication on *a* ***cultural plane***
  - ✓ *Communication* on an ***intellectual plane***

Doctor-patient relationship

❑ **Communication on an *emotional plane:***

- The doctor must give a **sympathetic ear to the complaints** made by the patient and his relatives.
- This is necessary to establish a quick rapport.
- The reason why folk medicine is successful is because the patient and his relatives feel they can **talk more freely to a folk medical practitioner** than with the modern physician.
- The **interpersonal relationships** between villagers and folk practitioners on one hand, and the villagers and the practitioners of modern medicine on the other hand are considerably different.

Doctor-patient relationship

❑ **Communication on *a cultural plane:***

- Secondly, the doctor should be aware of the general concepts of **culture and social organization** of the community with which he is dealing.
- To be successful, the modern doctor should couch his scientific advice in terms which fit an already **existing cultural pattern**.
- Then there is a great chance that this advice will be followed.
- A mere statement to a patient that the **medicine is "hot"** and will help to **cure a "cold" disease** may make for increased confidence.

Doctor-patient relationship

❑ ***Communication* on an *intellectual plane:***

- Practitioners of modern medicine come from well-to-do families, they tend to be sophisticated.
- This leaves a wide gap between the intellectual level of the practitioners of modern medicine and the illiterate masses, there is an enormous **"social distance"** between the two groups.
- A **successful doctor** is one **who reduces this distance** and is able to communicate with his patient freely and wins his confidence.
- A most important component of doctor-patient communication is ***humour*** which is the **best icebreaker** for the patient frozen by fear and anxiety.

Doctor-patient relationship

- The doctor who is able to communicate with his patient on these three planes is bound to give **maximum psychological satisfaction** to his patients.
- The other qualities which mar the reputation of a doctor are his greed for money, differential treatment between the rich and poor and lack of a sympathetic and friendly attitude.
- The patient can challenge the **doctor's professional adequacy** if the doctor does not know how to communicate.
- Patients who do not behave according to the doctor's expectations are often labelled as **"un-cooperative".**

Five-star doctor

The frontline health professionals will have **five principal** roles to play.

- ***Care-givers:*** Besides giving individual treatment, frontline doctors must take into account the total (physical, mental and social) needs of the patient.
- ***Decision-makers:*** The frontline doctor will have to take decisions that can be justified in terms of efficacy and cost.
- ***Communicators:*** The doctors of tomorrow must be excellent communicators in order to persuade individuals, families and the communities to adopt healthy lifestyles.

Five-star doctor

- ***Community leaders:*** By understanding the determinants of health inherent in the physical and social environment and by appreciating the breadth of each problem or health risk, the frontline doctor will take a positive interest in community health activities which will benefit large numbers of people.
- ***Managers:*** To carry out all these functions, it will be essential for the frontline doctors to acquire managerial skills.

Models of health and behavior

❑ **Individual or intrapersonal level**

- ***The Health Belief Model (HBM)*** addresses the individual's perceptions of the threat posed by a health problem **(Perceived susceptibility → Perceived severity → Perceived benefits → Perceived barriers → Cues to action → Self-efficacy).**
- ***The Stages of Change (Transtheoretical) Model)*** describes individuals' motivation and readiness to change a behavior **(Precontemplation → Contemplation → Preparation → Action → Maintenance).**
- ***The Theory of Planned Behavior (TPB)*** examines the relations between an individual's beliefs, attitudes, intentions, behavior, and perceived control over that behavior.

Models of health and behavior

- **Individual or intrapersonal level**
  - ***The Precaution Adoption Process Model (PAPM)*** names seven stages in an individual's journey from awareness to action. It begins with lack of awareness and advances through subsequent stages of becoming aware, deciding whether or not to act, acting, and maintaining the behavior.
- **Interpersonal Level**
  - ***Social Cognitive Theory (SCT)*** describes a dynamic, ongoing process in which personal factors, environmental factors, and human behavior exert influence upon each other.

Models of health and behavior

- **Community Level**
  - ***Community Organization and Other Participatory Models*** emphasize community-driven approaches to assessing and solving health and social problems.
  - ***Diffusion of Innovations Theory*** addresses how new ideas, products, and social practices spread within an organization, community, or society, or from one society to another.
  - ***Communication Theory*** describes how different types of communication affect health behavior.

Hippocratic oath or code of medical ethics

- Hippocratic oath or code of medical ethics is also known as The Declaration of Geneva.
- The **Declaration of Geneva** was adopted by the General Assembly of the World Medical Association at Geneva in 1948, amended in 1968, 1983, 1994, editorially revised in 2005 and 2006 and amended in 2017.

Hippocratic oath or code of medical ethics

As a member of the medical profession:

1. **I solemnly pledge** to dedicate my life to the service of humanity;
2. **The health and well-being of my patient** will be my first consideration;
3. **I will respect** the autonomy and dignity of my patient;
4. **I will maintain** the utmost respect for human life;
5. **I will not permit** considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient;

Hippocratic oath or code of medical ethics

6. **I will respect** the secrets that are confided in me, even after the patient has died;
7. **I will practice** my profession with conscience and dignity and in accordance with good medical practice;
8. **I will foster** the honor and noble traditions of the medical profession;
9. **I will give** to my teachers, colleagues and students the respect and gratitude that is their due;
10. **I will share** my medical knowledge for the benefit of the patient and the advancement of healthcare;

Hippocratic oath or code of medical ethics

11. **I will take prompt action** if patient safety is compromised from either internal physiological or external environmental causes;
12. **I will attend to** my own health, well-being and abilities in order to provide care of the highest standard;
13. **I will not use** my medical knowledge to violate human rights and civil liberties, even under threat;
14. **I make these promises** solemnly, freely and upon my honour.

Quality of care

- **Quality of care** is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with evidence-based professional knowledge.
- This definition quality of care spans **promotion, prevention, treatment, rehabilitation and palliation**, and implies that quality of care can be measured and continuously improved through the provision of evidence-based care that takes into consideration the needs and preferences of service users – patients, families and communities.

Characteristics of quality health care

- **Effective** by providing evidence-based health care services to those who need them;
- **Safe** by avoiding harm to the people for whom the care is intended;
- **People-centered** by providing care that responds to individual preferences, needs and values, within health services that are organized around the needs of people;
- **Timely** by reducing waiting times and sometimes harmful delays for both those who receive and those who give care;

Characteristics of quality health care

- **Equitable** by providing the same quality of care regardless of age, sex, gender, race, ethnicity, geographic location, religion, socio-economic status, linguistic or political affiliation;
- **Integrated** by providing care that is coordinated across levels and providers and makes available the full range of health services throughout the life course; and
- **Efficient** by maximizing the benefit of available resources and avoiding waste.

Patient safety

- **Patient safety** is defined as "**the absence of preventable harm** to a patient and **reduction of risk of unnecessary harm** associated with health care to an acceptable minimum."
- Within the broader health system context, it is "**a framework of organized activities** that creates cultures, processes, procedures, behaviours, technologies and environments in health care that consistently and **sustainably lower risks, reduce the occurrence of avoidable harm, make error** less likely and reduce impact of harm when it does occur."

Common sources of patient harm

- Medication errors
- Surgical errors
- Diagnostic errors
- Health care-associated infections
- Sepsis
- Patient falls
- Venous thromboembolism
- Pressure ulcers
- Unsafe transfusion practices
- Unsafe injection practices
- Patient misidentification

Strategies to ensure patient safety

- **Policies to eliminate avoidable harm in health care:** Make zero avoidable harm to patients a state of mind and a rule of engagement in the planning and delivery of health care everywhere
- **High-reliability systems:** Build high-reliability health systems and health organizations that protect patients daily from harm
- **Safety of clinical processes:** Assure the safety of every clinical process
- **Patient and family engagement:** Engage and empower patients and families to help and support the journey to safer health care

Strategies to ensure patient safety

- **Health worker education, skills and safety:** Inspire, educate, skill and protect health workers to contribute to the design and delivery of safe care systems
- **Information, research and risk management:** Ensure a constant flow of information and knowledge to drive the mitigation of risk, a reduction in levels of avoidable harm, and improvements in the safety of care
- **Synergy, partnership and solidarity:** Develop and sustain multisectoral and multinational synergy, partnership and solidarity to improve patient safety and quality of care

Essential qualities of a good doctor

- **Medical expertise**
- **Compassion and empathy**
- **Strong communication skills**
- **Critical thinking and problem-solving**
- **Integrity and professionalism**
- **Adaptability and lifelong learning**
- **Advocacy for patients**
- **Resilience and emotional stamina**
- **Attention to detail**
- **Leadership and collaboration**
- **Cultural awareness and humility**
- **Effective time management**
- **Dedication to innovation**

Role of a good doctor in society

- **Promoting** public health
- **Providing** quality healthcare
- **Ensuing** patient safety
- **Advocating** for patients
- **Contributing** to medical advancements
- **Educating** future generations

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