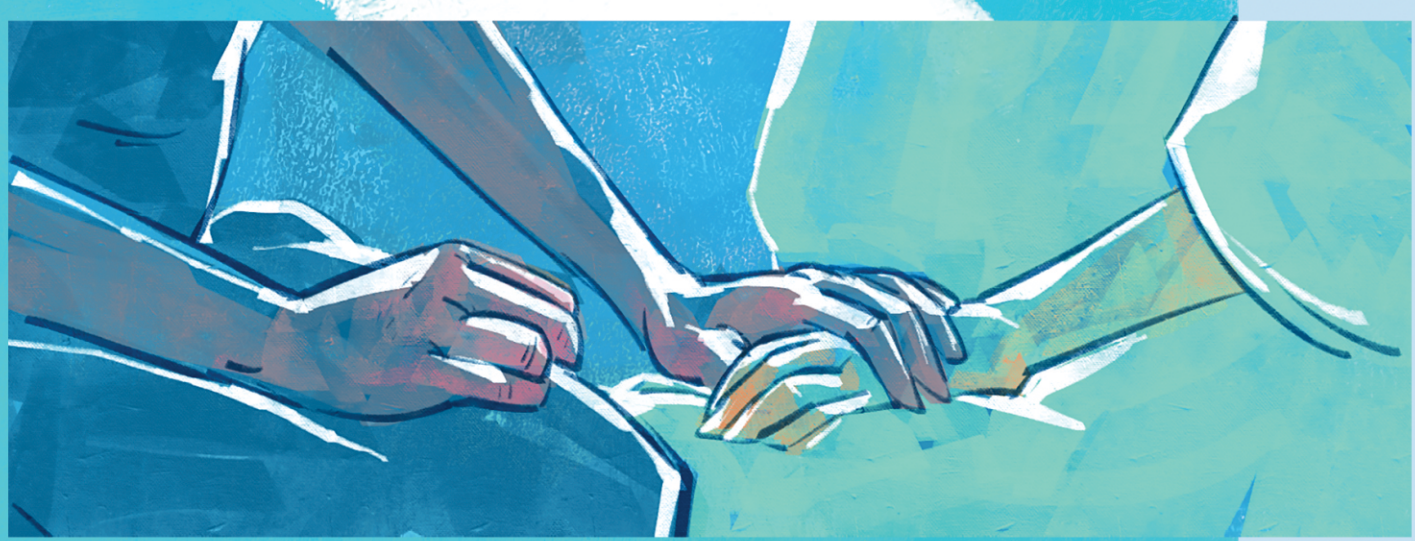
MEDICAL HUMANITIES



Editors

Mohammad Abul Faiz
FCPS, PhD
Professor of Medicine (Retired) &
Former Director General of Health Services

Rukshana Ahmed
MPhil, MMed
Professor and Additional Director General (Administration)
Directorate General of Medical Education (DGME)

Rubina Yasmin
FCPS
Professor of Medicine and Additional Director General (Medical Education)
Directorate General of Medical Education

Md. Shafiqul Bari
FCPS
Professor of Medicine Dhaka Medical College

Md Abdus Sattar
FCPS
Professor and Head of the department, Medicine Chittagong Medical College

Rabiul Alam Md Erfan Uddin
MCPS, FCPS, FRCP (Glasgow)
Assistant Professor Department of Medicine Chittagong Medical College

List of authors and Reviewers

List of Authors

Module number	Name of the module	Authors
1	Behavioral science	**Panchanan Acharjee;** MD Associate Professor and Head Department of Psychiatry, Chittagong Medical College **Mohammad Rafiqul Islam;** FCPS, FACP FRCP(Edin) Professor, Department of Medicine, Shaheed Suhrawardy Medical College
2	Medical Sociology	**Rubina Yasmin;** FCPS Professor of Medicine, Additional Director General (Medical Education), Directorate General of Medical Education, Mohakhali, Dhaka **Shahnoor Sharmin;** FCPS Associate Professor, Department of Medicine Dhaka Medical College
3	Etiquette in using social media	**Shishir Ranjan Chakroborty;** FCPS Professor, Department of Medicine, Principal, Sylhet MAG Osmani Medical College, Sylhet **Md. Enayet Hossain;** FCPS Professor of Medicine, Sylhet MAG Osmani Medical College
4	Self directed learning including team learning	**Rabiul Alam Md Erfan Uddin;** MCPS, FCPS, FRCP (Glasgow) Assistant Professor Department of Medicine, Chittagong Medical College **Aniruddha Ghose;** MD, FCPS Professor of Medicine, Chittagong Medical College, Chattogram
5	Medical Ethics	**Md. Shafiqul Bari;** FCPS Professor of Medicine, Dhaka Medical College **Mohammad Mahfuzul Hoque;** FCPS Assistant Professor, Department of Medicine Rangamati Medical College
6	Communication skill	**Mehrunnissa Khanom;** MRCP(UK), FRCP (Edin), FRCP(Glasgow) Associate Professor, Department of Medicine Chattagram International Medical College, Chattogram **Afroza Hoque;** BDS, MMed Associate Professor, Department of Medical Education Chattagram International Medical College
7	Doctor Patient relationship	**Anupam Barua;** FCPS MD Professor and Head Department of Medicine Chattogram Maa-o-shishu hospital Medical College, Chattogram **Rozina Hoque;** MPhil Professor and HOD of Pharmacology, Chattogram Maa-o-shishu hospital Medical College, Chattogram

8	Physician's bedside manner, etiquette, and rapport-building with patients	**Md. Abdus Sattar;** FCPS Professor and Head Department of Medicine, Chittagong Medical College **Tarek Shams; FCPS** Assistant Professor, Department of Medicine Chittagong Medical College
9	Integrity and accountability of medical professionals	**Enshad Ekram Ullah;** FCPS Associate Professor, Department of Medicine, Chittagong Medical College **Ismail Khan;** MPhil Professor of Pharmacology & Ex Vice Chancellor, Chittagong Medical University
10	Aspects of a good doctor	**Sujat Paul;** FCPS, MPhil Professor of Medicine Principal, Marine City Medical College, Chattogram **Md Faruk;** FCPS Associate Professor, Medicine, Marine City Medical College, Chattogram
11	Medical Professionalism	**Md. Ismail Patwary;** FCPS, MD, FACP, FRCP(Edin, Glasgow) Professor of Medicine, Sylhet Women's Medical College (SWMC) **Khandaker Abu Talha; MCPS, MPH, MS** Professor & Head, Department of Neurosurgery Sylhet Women's Medical College, Sylhet
12	Inter Professionalism	**Md. Azizul Haque;** FCPS, MRCP (UK), FRCP (Edin) Professor, Department of Medicine, Rajshahi Medical College **Laila Shamima Sharmin**, Assistant Professor, Department of Paediatrics, Rajshahi Medical College
13	Patient safety and medical error	**MA Faiz;** FCPS, PhD Professor of Medicine (Retd), Ex Director General Health Services, GOB **Hafez Md Nazmul Ahsan; FCPS** Associate Professor, Department of Medicine Shaheed Suhrawardy Medical College, Dhaka
14	Career Plan	**Fahmida Rashid;** MCPS, FCPS, MS Assistant Professor, Department of Obstetrics and Gynaecology, Chittagong Medical College **Shahena Akter;** MBBS,DGO, FCPS Professor, Obstetrics and Gynaecology, OSD, DGHS Ex-Principal, Chttagong Medical College
15	Basic Infection Prevention and Control	**Md. Akram Hossain;** MPhil, FRCP Ed Senior Consultant, Microbiology & Head of Laboratory Medicine Chairman, IPC Committee Apollo Imperial Hospitals **Ariful Basher;** MPH, FCPS (M), FCPS(ID) MD Senior Consultant & Superintendent, Infectious Diseases Hospital, Dhaka **Mahfuza Nasrin;** MPhil Associate Professor of Microbiology, Uttara Adhunik Medical College

16	White coat ceremony	**Md Mahfuzer Rahman;** MD, FACP, FRCP (Edin), FRCP (Glasgow) Professor of Medicine OSD, GHS, Ex Principal, Rangpur Medical College **ASM Rahenur Mondol;** FCPS Associate Professor, Department of Medicine, Rangpur Medical College
17	CME, CPD	**Abu Shahin Mohammed Mahbubur Rahman;** FCPS, MRCP (UK), FACP Associate Professor, Department of Medicine, Rajshahi Medical College **Md Zahirul Haque;** FCPS Professor of Medicine, & Vice Principal, Rajshahi Medical College
18	Causes of death	**Pritish Tarafdar;** MCPS, FCPS Assistant Professor, Department of Medicine, Khulna Medical College **Md. Nur Hossain Bhuiyan;** FCPS, FMAS, FACS, FRCS Professor of Surgery, Cox's Bazar Medical College

List of Reviewers:

Module number	Name of the module	Reviewers
1	Behavioral science	**Mohammad Kamruzzaman Khan**, MPH, PhD Associate Professor & Head, Department of Community Medicine & Public Health, Mymensingh Medical College **Fouzia Yesmin;** MPH Associate Professor, Department of Community Medicine & public Health, Shaheed Suhrawardy Medical College, Dhaka
2	Medical Sociology	**Rahnuma Parveen** Assistant Professor, Department of Medicine, Shaheed Tajuddin Ahmad Medical College, Gazipur
3	Etiquette in using social media	**M M Jahangir Alam;** FCPS Professor, Department of Medicine, Sylhet MAG Osmani Medical College. **Dr. Nahida Zafrin;** FCPS Associate Professor, Department of Medicine, Sylhet MAG Osmani Medical college.
4	Self directed learning including team learning	**Homayra Tahseen Hossain**; FCPS, MRCP, FRCP, FACP Professor, Department of Medicine, Popular Medical College, Dhaka **Muntasir Hasnain;** FCPS Assistant Professor, Department of Medicine, Sir Salimullah Medical College, Dhaka
5	Medical Ethics	**Md Rezaul Karim;** FCPS Professor of Medicine, Dhaka Medical college

6	Communication skill	**Md. Amir Hossain;** FCPS Professor of Medicine, Chairman, Medical Education and Research, Chattagram International Medical College **Professor Dr. Md. Humayun Kabir Talukder** Professor (Curriculum Development & Evaluation) **Sujit Kumar Sarkar;** MPhil Associate Professor, Dhaka Medical College
7	Doctor Patient relationship	**Dr. Maliha Ata;** MPhil Associate Professor, Department of Pharmacology, Chattogram Maa-o-shishu hospital Medical College, Chattogram
		Happy Rani Barua; DFM, MCPS Assistant Professor, Department of Forensic Medicine, Chattogram Maa-o-shishu hospital Medical College, Chattogram
8	Physician's bedside manner, etiquette, and rapport-building with patients	**Md Atiquel Islam Chowdhury;** MCPS, FCPS, MRCP (UK) Professor, Department of Medicine, Southern Medical College Chittagong **Abu Muhammad Shamsu Uddin;** FCPS Assistant Professor, Department of Medicine, Cox's Bazar Medical College.
9	Integrity and accountability of medical professionals	**Shah Md Sarwer Jahan;** FCPS Professor of Medicine, OSD, Ex-Principal, Rangpur Medical College **Prof Md Hafizul Islam;** MPhil Ex Vice –Principal, Chittagong Medical College
10	Aspects of a good doctor	**Dr Md Saiful Islam Patwary;** FCPS Associate Professor, Chandpur Medical College **Dr Muhammad Mahbub Hossain** Associate Professor, Medicine, Faridpur Medical College.
11	Medical Professionalism	**Md. Forhad Abedin;** FCPS, MD, FRCP Assistant Professor, Department of Hepatology, Comilla Medical College
12	Inter Professionalism	**Syed Atiqullah;** FCPS MD Associate Professor, Medicine OSD DGHS, attached to Kurmitola General Hospital **Mohammad Habibullah,** FCPS Assistant Professor, Department of Medicine, Dhaka Medical College.
13	Patient safety and medical error	**Goutam Kumar Acherjya;** FCPS Associate Professor, Department of Medicine, Jashore Medical College
		Biplap Kumar Barman; FCPS Assistant Professor; Department of Surgery, Chandpur Medical College, Chandpur

14	Career Plan	**Professor Dr. Md. Zakir Hossain;** FCPS, FACP, FRCP (Edin) Principal, TMSS Medical College College **Ratindra Nath Mondal;** FCPS Associate Professor, Prime Medical College, Rangpur
15	Basic Infection Prevention and Control	**Shaheda Anwar** Associate Professor of Microbiology and Immunology, Focal person for IPC, BSMMU **Mursheda Akter** Senior consultant of Microbiology and Focal person for IPC, Asgar Ali Hospital.
16	White coat ceremony	**Rukhsana Hossain;** MD, FCPS EMO, Rangpur Medical College Hospital, Rangpur
17	CME, CPD	
18	Causes of death	**Gobinda Chanda Banik;** FCPS Professor, Department of Medicine, Mugdha Medical College

Preamble

In the 21st Century the medical advancements are transforming the landscape of healthcare. The importance of cultivating a compassionate, ethical, and patient-centered approach cannot be overstated. The field of 'Medical Humanities' provides a bridge between the science and the human experience, emphasizing the values, emotions, and cultural contexts that define and enrich the practice of medicine.
The **"Handbook on Generic Topics on Medical Humanities,"** seeks to serve as a foundational resource for health professional students, healthcare professionals, and educators. It explores the interdisciplinary integration of humanities into medical education and practice, addressing critical topics of 'soft skills like: behavioral science, medical ethics, communication skill, leadership quality, etiquette and medical code of conduct', empathy, resilience, cultural sensitivity, and the art of healing.

The intention of this work is not only to enhance clinical competence but also to nurture a sense of humanity in medicine. By engaging with these guidelines, readers are invited to reflect on the broader implications of their roles as caregivers, educators, and advocates in a rapidly evolving healthcare ecosystem.

At its core, this book reaffirms the timeless truth that medicine is not merely 'a science of curing diseases but also an art of understanding and caring for individuals'. It is our hope that these guidelines will inspire a renewed commitment to the humanistic values that lie at the heart of the medical profession, fostering a generation of healthcare practitioners who are as empathetic as they are skilled.

This book comprises of 18 modules from 'Generic Topics on Medical humanities' of Bachelor of Medicine & Bachelor of Surgery (MBBS) Curriculum in Bangladesh- 2021. There was an essential need for such a book having these topics, taught and discussed in the different phases of MBBS curriculum. In phase I, behavioral science, medical sociology, etiquette in using social medias, self-directed learning including team learning, and medical ethics will be delivered and assessed. In Phase II, communication skill, doctors- patient relationship and physicians' bed side manner, etiquette and rapport building with patients will be taught. Integrity and accountability of medical professionals and aspects of good doctor allocated for phase III, medical professionalism, inter-professionalism and patient safety & medical error are for phase IV.

White coat ceremony, carrier planning and CME/CPD are selected for internship training.

It is difficult to teach the soft skills which are felt by the care seekers. This book will guide the teachers and educators to teach the topics in an uniform thinking through the 'lens of humanity'. And the medical practitioners, newly graduated doctors and senior medical students is expected to get the insight and philosophy to become a competent professional having attributes relevant for the 21st Century.

Mohammad Abul Faiz
Rukshana Ahmed
Rubina Yasmin
Md. Shafiqul Bari
Md Abdus Sattar
Rabiul Alam
Md Erfan Uddin

Message from the Director General

Professor Dr Nazmul Hosain
Director General
Directorate General of Medical Education (DGME)
Medical Education and Family Welfare Division,
Ministry of Health and Family Welfare
Government of the Peoples' Republic of Bangladesh

I am pleased to share with you the **handbook on "Medical Humanities"**. This comprehensive resource is designed to provide an insightful framework for fostering a deeper understanding of the intersection between medicine and the human experience.

The guidelines address key themes in medical humanities, including ethics, empathy, communication, and the cultural and social dimensions of healthcare. They aim to equip medical students and healthcare professionals with a holistic approach to patient care, emphasizing the importance of compassion, cultural competence, and moral reasoning in clinical practice.

This document is expected to serve as an invaluable tool for educators, practitioners, and policymakers in shaping the well-rounded healthcare professionals who are not only technically skilled but also attuned to the human aspects of healing.

I encourage you to use these guidelines into teaching, practice, or organizational framework. Together, we can advance a more patient-centered and humane healthcare system.

Best wishes for the book.

Professor Dr Nazmul Hosain

List of Contents

Topic 1: Behavioral Science

Panchanan Acharjee; Mohammad Rafiqul Islam

Outline	
Topic	Behavioral science
Learning objectives	At the end of the session, students will be able to • explain concept of behavior, personality, trait, attitude, norms, value and healthy behavior • explain bio psychosocial model of health • state the importance of behavioral science in clinical practice • state the effective way to change behavior • mention means of good behavior with patient
List of contents	• Concept of behavior, personality, trait, attitude, norms, value and healthy behavior • Bio-physio social model of health • Importance of behavioral science in clinical practice • Effective way to change behavior • Means of good behavior with patient
Method	• Interactive lecture • Seminar
Time	• One and half hour

Dipu and Tipu are twin brothers. One day, their uncle came to their house to visit. After initial conversations, uncle asked some grammatical questions to them. Dipu was answering all the questions with enthusiasm. But Tipu kept silence. His uncle tried to make him talk in various ways. But Tipu kept silence. Seeing this, their mother asked Tipu, "Why are you silent Tipu? You know all the answers. Why are you behaving like this?"

What is behavior? What do you think about the reasons behind Tipu's behavior?

Behavior:

Levitis et al. defined behavior as: "the internally coordinated responses (actions or inactions) of whole living organisms (individuals or groups) to internal and/or external stimuli, excluding responses more easily understood as developmental changes". In short, the observable and measurable act of a being is known as behavior. It is the way in which an animal or person behaves in response to a particular situation or stimulus.[1-3]

Attitude:

Attitudes are either positive or negative evaluations of people, objects, events, or ideas by a person.[2]
These are formed by[2,4]

- Social (parents or peers),
- Cognitive (own logic and reasoning), and
- Behavioral influences (the less external justification of behavior, the more behavior consistent attitude).

An important aspect is that attitudes are seen as expressions or subordinate consequences of values. Attitudes can express values to a different degree.[4]

Norms

Norms are a fundamental concept in the social sciences. They are most commonly defined as rules or expectations that are socially enforced. The term is also sometimes used to refer to patterns of behavior and internalized values.[5]

By definition, norms are social phenomena, and they are propagated among group members through communication. Communication plays a part not only in formulating perceptions about norms, but also in acting as conduit of influence.[6]

Norms may be prescriptive (encouraging positive behavior; for example, "be honest") or proscriptive (discouraging negative behavior; for example, "do not cheat").[5]

Value[4]

Values refer to intangible qualities or beliefs accepted and endorsed by a given society. It is a preferred course of action.

Personal values are individual conceptions of the desirable that guide behavior. In most general sense, a value is something that is important to a person and a very abstract end state that he or she wants to achieve. When it comes to how abstract values translate into concrete behavior; then historic and cultural context seems to play an important role.

Values have been linked to various outcomes, including attitudes, beliefs, worries, personality traits, political preferences, consumer behavior, and other constructs. Values are typically seen as the organizing principles or determinants of attitudes, and behavior. Values are the source of motivation in the value–attitude–behavior model of value-motivated behavior.

Relationship between norms and values

Norms	Values
Every culture contains a large number of guidelines which direct the conduct of its constituent members in particular situations. Such guidelines are known as norms.	Values are general ideas about what is desirable, but such general ideas do not specify how one should act in particular situation.
Norms specify how an individual ought to behave in consistency with values of a society.	Values are expressed in behavior through the norms.
Specific Example: Touching feet/shaking hands/bow down to pay respect to elders	More general Example: Paying respect to elders
Codes of conduct by a society	Sets of beliefs an individual has to guide his behavior.

Health behavior[7]

In recent years, chronic diseases, including heart disease, cancer, lung diseases, and diabetes, becoming the most frequent causes of death globally. This mortality is highly contributed by various behavioral factors, like- dietary habit, activity patterns, smoking habit, alcohol and others substance use etc. Also, infectious diseases continue their fatal effects, especially for the very young, the old, and those with compromised immune systems. Effective health behavior interventions can also change outcome of these type of illness also. Substantial suffering, premature mortality, and medical costs can be avoided by positive changes in various behavior types at multiple levels. All of these resulted in the dramatic increase in public, private, and professional interest in preventing disability and death through changes in lifestyle and behavior. All these leads to a new term of interest- health behavior.Health behavior is defined as "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". It includes both the observable, overt actions as well as the mental events and feeling states.

In total it includes-

- 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.

Based on Kasl and Cobb's definition, health behaviors are of three categories:

Category	Background thoughts	Purpose/outcome
Preventive health behavior	An individual believes himself (or herself) to be healthy	Preventing or detecting illness in an asymptomatic state.
Illness behavior	An individual perceives himself (or herself) to be ill	To define the state of health, and to discover a suitable remedy,
Sick-role behavior	An individual considers himself (or herself) to be ill	Receiving treatment from medical providers, and leads to some degree of exemption from one's usual responsibilities.

Personality

Although it is worded differently by various psychologists, its central idea remains the same. Personality refers to an individual's characteristic patterns of thought, emotion, and behavior, together with the psychological mechanisms- hidden or not - behind those patterns.[8] Others defined the personality as the set of psychological traits and mechanisms within the individual that are organized and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical, and social environments.[9]

In a nutshell, unique patterning of behavioral and mental process that characterize individual and individual's interaction with environment is the personality. It is predictable and stable.[10] Personality can be defined as the totality of the person's emotional and behavioral traits that characterize their day-to day living.[11] The key word in

the definition of personality is 'individual'. Henry Murray stated that, “every person is in some ways like all other people, in other ways like some other people, and in still other ways like no other person”.[12]

Character

Personal characteristics that have been judged or evaluated.[10]

Personality Trait

Relatively stable characteristics of a person that can be measured.[10] Stable characteristics mean the reactions or attributes that a person shows in most situations.

The trait perspective assumes that, people's behavior in many different situations will reflect these personal traits. That is, behavior is generally caused by internal factors, traits, rather than external pressure and situations.

Bio-psycho-social model of health

In medical science, many diagnoses currently funded are not objective or easily proven entities. 25% of hospital outpatients and about 7%-9% of hospital admissions have problems that are not accounted for by any disease, and these are not coded as this but have incorrect disease codes. Many mental health diagnoses lack any diagnostic confirmation other than reported symptomatology and observed behaviors.[13]

Again, stress, social support, and emotions, for example, have been shown to play important roles in the progression and management of cardiac disease and cancer. Treatment outcome is highly depending on symptom perception, medical care seeking, and patient adherence. Behavioral interventions have demonstrated success in promoting smoking, reducing the stress and adverse consequences of medical procedures and facilitating the recovery and adaptation of persons with chronic illness. The biomedical model of disease cannot include all of these into a single account. This can be done by the biopsychosocial model (BPS), which explains that physical health and well-being are shaped by the interactions between biological, psychological, and social factors.[14]

This model was first developed by George Engel in his landmark paper in the *Science* in 1977 warning of a crisis in the biomedical paradigm. This model emphasizes that physical health and illness not only some biological issue, rather involves a combination of biological, psychological, and social processes. In 2002, the World Health Organization (WHO) published its International Classification of Functioning, Disability and Health (WHO ICF), which is explicitly related to the biopsychosocial model. Now-a-days, it is probably the most widely mentioned and used model in research into rehabilitation and disability including chronic pain, psychiatric disorders, and, possibly, functional disorders. Studies addressing biopsychosocial application suggest that chronic conditions are examples where integrated or holistic biopsychosocial model could be implemented.[13]

Still clinically biomedical model is being widely practiced. That is, disease can be understood independently from the patient suffering from it, and can be explained by abnormal molecular, pathological, and clinical markers observable to the physicians. Biopsychosocial

model is neglected or inadequately applied in clinical practice, especially the sociocultural factors. It is negatively considered due to so-called time-consuming evaluation and patient care process, along with better competency from the doctors while performing biopsychosocial practice.[14]

But the biopsychosocial model can easily be used even in primary care setting to improve clinical outcomes. This can be done by using dynamic and dyadic doctor-patient relationship and multidisciplinary approach of patient care, which can create awareness on the interactions among biological, psychological, sociocultural, and spiritual factors, and can enhance self-management of patients' illnesses. Biopsychosocial model is particularly useful to address chronic diseases and ill-defined illnesses to which patients mount unique responses.[14]

Importance of behavioral science in clinical practice

Behavioral science is a discipline integrating the psychological and socio-cultural facets of human behavior. This discipline has not, however, been well received by the medical students. Describing this phenomenon, one educator wrote: “it is precisely theory- theory of any kind -which is irrelevant. Today's young people are not interested in abstractions. They want to come to grips with life in the concrete.

It now appears that “relevant” means “human. concrete, real, personal”. If “relevant” means “concrete” then theory being abstract must be irrelevant. This view completely overlooks the potential benefits theory has for the practitioner. One objective of medical education. in addition to developing minimum skills, is an ability for independent problem-solving, self- regulation, and continuous self-education. These aims justify the place of behavioral science theory in professional programs.

The student's narrow perspective. centered on practice, diminishes his potential for adapting to new situations. Rational adaptation, necessary when existing habits are inadequate. Narrowly based thought that is functional in one context may be of limited adaptational utility in other situations. Theoretical sophistication aids problem-solving by increasing one's repertoire of possible responses to problem situations.

A number of factors make the clinic, or classroom the central concern of the student. In Becker's classic study of medical education, the student's point of view was called the “experience perspective”. This priority given to practicum experience evolves from the belief that “knowledge about” a subject is either profound common sense or sufficiently obtained in undergraduate studies. “Acquaintance with” is considered the appropriate emphasis of professional education. Several factors reinforce this opinion. One feature of professionalism stressed by instructors is autonomy, the ability to stand on one's own feet and take responsibility for one's actions. Moreover, the practice involves uncertainties and complexities that often exhaust available knowledge and require thinking for oneself. In addition to being a test of self. Practice is perceived as a proving ground-an opportunity todisplay one's talent-that is necessary to be certain of future employment. What a student actually does is believed to make the long-term difference between success and failure. Consequently. he is committed to the notion that if anything is to be derived from his professional education he must experience it personally. Doing something oneself and observing others in action, is what really counts.

Effective way to change behavior

In 1913, John B Watson proposed that psychology should be based on studying visible behaviors rather than using introspection to understand non-visible mental processes.[15] This view is known as behaviorism.

Behaviorism postulates that an individual develops all aspects of behavior through experiences related to the connection between environmental stimuli and responses to those stimuli.[16] Those responses may include cognitive elements, unobservable mental processes, and choice in mediating the behavior of the individual. When behaviors are not well-learned or when they occur in unstable or unpredictable contexts, people must make conscious decisions to perform the desired behavior.[17] Few behaviors are conscious and most are learned

habits. Those habits - or isolated acts - are sequenced into routines that allow the individual to consciously apply thought when necessary. The challenge, then, for educators seeking behavior change is not to change the behavior, but rather to change the routine that exists around that behavior. In other words, changing behaviors is not about changing one act; it is about altering the routines in which the acts are embedded.

Behavior change can be aimed at different levels, including individual, organizational, community, and population levels, and any intervention delivered at one level can impact on other levels. The most effective interventions are those that target several levels simultaneously and consistently.[11] Two different theoretical models have been useful to researchers interested in understanding and predicting health-related behavior change: (a) the stages-of-change model (Prochaska & DiClemente, 1983) and (b) self-efficacy theory (Bandura, 1977).

In 1983, Prochaska and DiClemente developed the stages-of-change model as a framework to describe the different phases involved in the acquisition and maintenance of behavior. They suggested individuals engaging in a new behavior move in an orderly progression through the stages of Precontemplation (no intention to change behavior), Contemplation (intention to change behavior), Action (involved in behavior change), and Maintenance (sustain behavior change). Individuals are thought to progress through these stages at varying rates, with some subjects getting "stuck" at certain stages and others relapsing and sliding back to earlier stages. This model can be used in almost all behavioral problems which needed to change. For this, at first the patient is to be evaluated to identify in which stage he or she belongs. Then the factors, both positive and negative should be identified. Positive factors should be entertained while negative factors should be corrected to move forward to the next step or to be in the maintenance step and then to permanent exit.

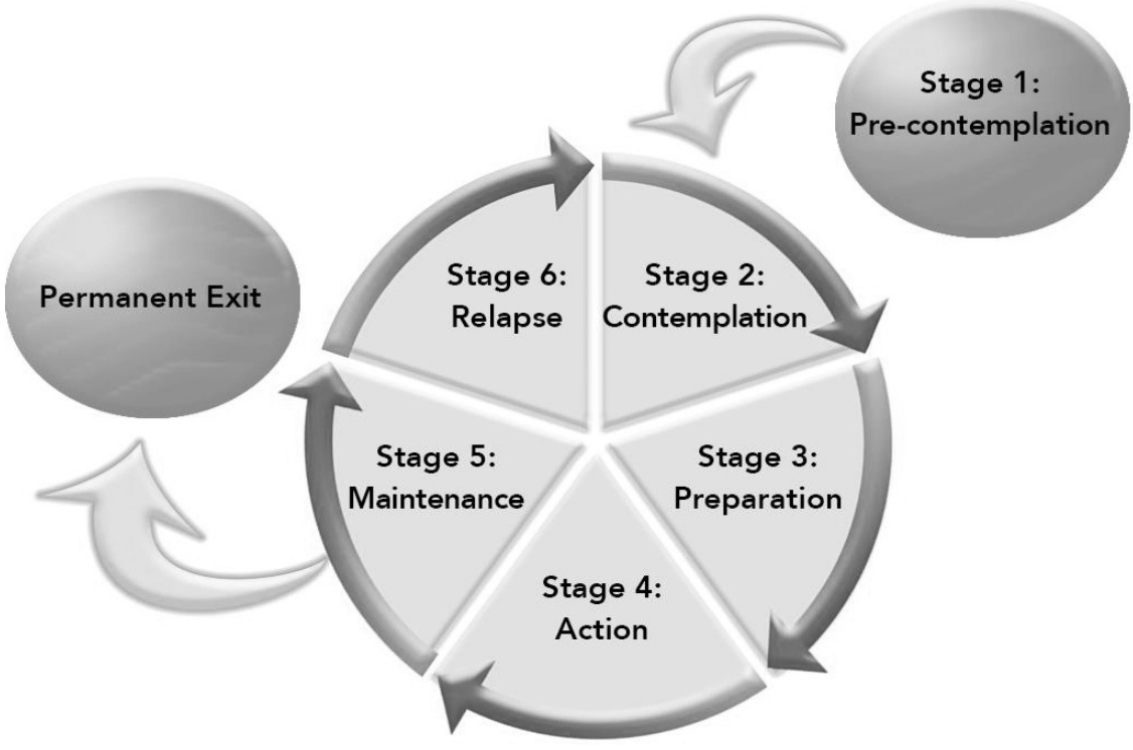


Figure: Stages of change model[18]

For example, a 1st year medical student was happy enough after getting admitted in the medical college. He thought that he will manage the study in medical life anyhow and get too much engaged in extracurricular activities (pre-contemplation). After the consecutive failure in several item examination, he thought to start study seriously (contemplation). Then he started to talk with peers, seniors to collect information about how to study and bought several books (preparation). After making a plan he started to study regularly (action). As a consequence, he performed well in all types of exams regularly (maintenance). Finally, he passed his first professional exam successfully. Being promoted to the 2nd phase, he became relaxed in study. At the same time, one of his roommates invited him to participate in a cultural program. He got engaged there and successfully performed there. But, in the meantime he lost his motivation to study as before (relapse).

Bandura's Social Learning Theory attempts to predict and explain behavior using several key concepts; among these are incentives, outcome expectations, and self-efficacy expectations. Although all are important, the concept of self-efficacy expectations is of particular relevance to health education. However, despite the critical role it appears to play in the initiation and maintenance of behavior change, self-efficacy has received relatively little attention in the health education research and practice literature. The purpose of this article is to facilitate a clearer understanding of both the concept and its relevance for health education research and practice.

There are also varieties of models to change behavior effectively. For example: The APEASE Criteria, COM-B (Capability, Opportunity, Motivation, Behavior) model, the “Nudge” Approach, The Behavior Change Wheel etc.[11]

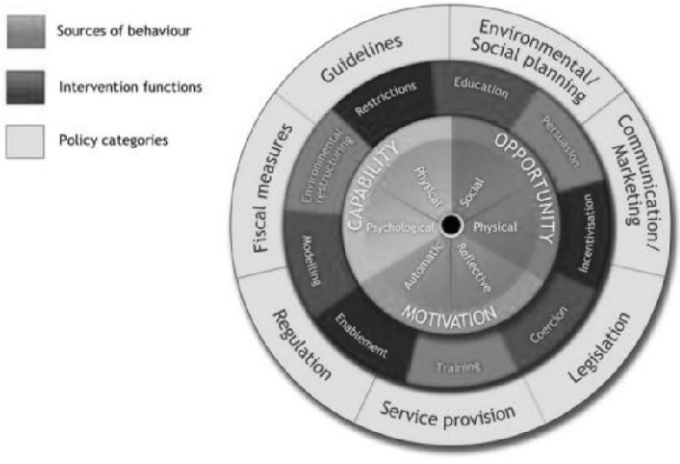


Figure: Behavior change wheel[18]

Good behavior with patients

Instrumental behavior is considered as all interactions that serve the "cure" part of the consultation. It can be defined as technically-based skills that are used in problem-solving e.g., giving directions, giving information, asking clarification, asking questions, counseling, etc.

The affective behavior in doctor-patient communication is part of the emotional domain and consists of all forms of social behavior and social talk. Possible affective expressions are showing concern, reassurance, reflection, signs of agreement or disagreement, and paraphrasing. Non-verbal behavior can be operationalized in different ways such as eye contact, tone of voice, laughter, facial expression, physical distance, nodding, etc. Patient centeredness can be classified into several aspects such as supportive talk, being attentive to patients’

psychosocial as well as physical needs, enabling the disclosure of patients' concerns, conveying a sense of partnership, and actively facilitating patient involvement in the decision making.

Throughout the treatment process in Bangladesh, till to date, patients are often viewed as passive recipients of care, rather than as active stakeholders who can make decisions and even prevent errors. Engaged patients can bring better experience of care, can improve health outcomes on multiple indicators and can ensure their safety. They can help during hospital stay in many ways by playing several roles, like- bedside monitor, apprentice, decision- maker, historian, and team manager. So, it is very much important to make a patient engaged in his or her own treatment procedure to have a better management and good outcome.

To make a patient engaged, the physician might possess some quality behaviors. Researchers suggest that, patient often want his or her doctor to be competent, humorous, good listener etc. The physician should show seriousness on their symptoms or concerns, will provide adequate time during the treatment, will perfectly explain the disease condition and treatment plan to them, and will be available to ask any questions freely. Invariably, they want a physician would consider them as a human being rather than a diseased person. For example, physician may ask about their jobs, their families etc., in excess of asking only about the disease state. The physician would be a good person as well.[19] A list of good qualities for medical learners to possess in Table- 2 below.[20]

Physicians need to be aware of the differences in giving information to and involving patients from lower social classes in the consultation, as well as of the underlying causes. It is important that physicians pay attention to the attitudes that they have toward patients, and have to remain aware of how their feelings might impact their behavior and thus be perceived by patients. They should consider the possibility that conscious or unconscious stereotyping may influence their behaviors, including their interpersonal style. Physicians have to encourage patients to discuss their concerns and to ask questions, and they should listen actively. Communication skills and attitudes training can be an important tool to improve these defaults: the effects of such training have been proven and can persist over time.

In a nutshell, a physician should be a good human being at first, and then be empathetic to his or her patient. But a physician should keep in mind that, there is no universal or ultimate good or bad behavior. The main focus is to be the balanced behavior in contrast to situation, patients' psychology, cultural factors, and so on.

Table-2: List of good qualities for medical learners (Slightly edited)

Neurocognitive attribute	Definition
Advocacy	Providing support to a person and ensuring his/her rights in a health care context
Affability	Being pleasant and at ease while talking
Collaboration	Working jointly with others or together
Compassion	Showing sympathetic consciousness to others distress together with desire to alleviate this
Conscientiousness	Wishing to do one’s work or duty thoroughly
Courage	Having mental or moral strength to venture, persevere and withstand danger, fear or difficulty
Cultural sensitivity	Being aware that cultural difference and similarities exists

Curiosity	Having interest leading to inquiry
Empathy	Understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of others
Equanimity	Possessing evenness of mind under stress
Equity	Being fair and impartial
Grit	Applying passion and sustained persistence towards long-term achievement without concern for reward or recognition
Growth mindset	Believing that the basic qualities of a person can be cultivated through effort
Holism	Showing interest in complete system
Humility	Demonstrating freedom from pride or arrogance
Open-mindedness	Being willing to consider new idea
Resilience	Demonstrating the ability to recover from or adjust easily to misfortune or change
Self-awareness	Being aware of one's own personality or individuality

Assessment:

MCQ: (Each question contains 1 mark)

1. A personality trait is considered to be ___. **1**

a. enduring
b. transient
c. exceptional
d. inconsistent
e. difficult to detect

SAQ

A 15-year-old boy was brought to you by his parents with complaints of disobeying parents' instructions, demanding behavior, poor academic results. His parents also complaints about his smoking behaviors. Whenever the boy was asked to quit smoking, he replied that smoking is not causing any harm to him.

a. Which one of the stages this boy belongs according to the stages-of-change model? **1**
b. How you would proceed to deal with the patient to change his behavior. **4**

Bibliography

1. Levitis DA, Lidicker WZ, Freund G. Behavioural biologists don't agree on what constitutes behaviour. Anim Behav. 2009 Jul 1;78(1):103-110. doi: 10.1016/j.anbehav.2009.03.018. PMID: 20160973; PMCID: PMC2760923.
2. Crider AB, Goethals GR, Solomon PR, Kavanaugh RD. Social cognition. In: Psychology. 3rd ed. Glensview III: Scott Foresman; 1989. p. 411–8.
3. Society definition & meaning [Internet]. Merriam-Webster. Merriam-Webster; [cited 2022Sep16]. Available from: https://www.merriam-webster.com/dictionary/society

4. Ponizovskiy V, Grigoryan L, Kühnen U, Boehnke K. Social Construction of the Value- Behavior Relation. Front Psychol. 2019 May 1;10:934. doi: 10.3389/fpsyg.2019.00934. PMID: 31118911; PMCID: PMC6504687.

5. Norms [Internet]. [cited 2022Sep16]. Available from: https://www.oxfordbibliographies.com/view/document/obo-9780199756384/obo- 9780199756384-0091.xml

6. Lapinski MK, Rimal RN. An explication of social norms. Commun Theory. 2005;15(2):127–47.

7. Glanz K, Rimer BK, Viswanath K. Health Behavior and Health Education: Theory, research, and Practice. 4th ed. San Francisco, CA: Jossey-Bass; 2008.

8. Bergner, R. What is personality? Two myths and a definition. New Ideas in Psychology. 2020;57:1-8.

9. Larsen RJ, Buss DM. Introduction to personality. In: Personality psychology: Domains of knowledge about human nature. New York, NY: McGraw Hill; 2005. p. 1–23.

10. Crider AB, Goethals GR, Solomon PR, Kavanaugh RD. Personality and assesment. In: Psychology. 3rd ed. Glensview III: Scott Foresman; 1989. p. 467-503.

11. Casey PR, Kelly B. Fish's clinical psychopathology: Signs and symptoms in psychiatry. 3rd ed. Cambridge, United Kingdom: Cambridge University Press; 2019.

12. Kluckhohn, C., & Murray, H. A. (1953). Personality Formation: The Determinants. In C. Kluckhohn, H. A. Murray, & D. M. Schneider (Eds.), Personality in Nature, Society, and Culture (2nd ed., pp. 53-69). New York, NY: Alfred A. Knopf.

13. Wade DT, Halligan PW. The biopsychosocial model of illness: A model whose time has come. Clin. Rehabil. 2017;31(8):995–1004.

14. Kusnanto H, Agustian D, Hilmanto D. Biopsychosocial model of illnesses in primary care: A hermeneutic literature review. J Family Med Prim Care. 2018;7(3):497.

15. Heimlich, J.E. and Ardoin, N.M., 2008. Understanding behavior to understand behavior change: A literature review. *Environmental education research*, *14*(3), pp.215-237.

16. Tomporowski PD. Effects of acute bouts of exercise on cognition. Acta Psychologica. 2003;112(3):297–324.

17. Ouellette JA, Wood W. Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. Psychological Bulletin. 1998;124(1):54–74.

18. Jankoski JA. 2.5 Stages of Change. psupbunizinorg [Internet]. [cited 2024 May 28]; Available from: https://psu.pb.unizin.org/hdfs414/chapter/stages-of-change/

Tombor, I, Michie S. (in press). Methods of Health Behaviour Change. In Oxford

19. Tombor, I, Michie S. (in press). Methods of Health Behaviour Change. In Oxford Research Encyclopedia of Psychology. Ed. Oliver Braddick. New York: Oxford University Press, forthcoming.

20. Robin DiMatteo M, Prince LM, Taranta A. Patients' percentions of physicians' behavior. Journal of Community Health. 1979;4(4):280–90.

21. Warm, EJ, Kinnear B, Lance S, Schauer DP, Brenner J. What Behaviors Define a Good Physician? Assessing and Communicating About Noncognitive Skills. Acad Med 2022;97(2):193-199.doi: 10.1097/ACM.0000000000004215

Topic 2: Medical Sociology

Rubina Yasmin, Shahnoor Sharmin

Outline	
Topic	**Medical Sociology**
Learning objectives	At the end of the session, students will be able to • Define inter-professionalism (IP) • Mention importance of IP in health care • List the members of inter-professional collaboration • State the means of developing inter-professional collaboration among health team • Mention some health service related areas requiring interprofessional collaboration
List of content	• Define inter-professionalism (IP) • Importance of IP in health care • members of interprofessional team collaboration • means of developing interprofessional collaboration among health team • some health service-related areas requiring interprofessional collaboration
Method	• Interactive lecture • Seminar • Group work
Time	• One and half hour

Introduction

Medical sociology involves the convergence of two academic disciplines with basically different histories. Medicine has been concerned with the treatment of disease from time immemorial, but sociology is a product of nineteenth-century thought.

Definition of Sociology

Sociology has been variously defined since Auguste Comte coined the term in 1838. Simply, sociology is the study of human society and social problems. Sociology is the scientific study of social relations, institutions, and society (Smelser 1994). In addition, sociology can be defined as the scientific study of the dynamics of society and their intricate connection to patterns of behaviour. Social institutions include kinship, economic, political, education, and religious institutions. The institutions are like pillars that hold up society because they are the constituent parts of the social system (society). These parts are interdependent and interrelated with specialized functions towards the survival of the society. In a more concise form the American Sociological Association (ASA) defined sociology "as the study of social life, social change, and the social causes and consequences of human behavior."

Definition of Medical Sociology

Medical sociology is the application of sociological theories, knowledge, and concepts to issues of health and illness. Medical sociology can also be defined as the scientific *study of the social patterning of health*. In this case, it is a study of how social factors (e.g., class, race, gender, religion, ethnicity, kinship network, marriage, educational status, age, place, and cultural practices) influence human health. The idea of social patterning indicates that these social factors could be the determinants of human health status. It is in this sense that some diseases may be referred to as diseases of poverty (e.g., malnutrition and TB) because they are much more prevalent in poor regions or among the poor.

Medical sociology is distinct in its approach because it considers the import that social and structural factors have on the disease and illness processes as well as on the organization and delivery of health care. These factors also include culture (e.g., values, beliefs, normative expectations), organizational processes (e.g., hospital setting), politics (e.g., health care policy, health budget, political ideology), economic system (e.g., capitalism, the costs of health care), and micro level processes such as socialization and identity formation.

How does sociology apply to medicine?

Sociology applied to medicine seeks to understand the social contexts within which health, illness and medicine are formed, experienced and practiced. It provides a disciplinary framework for the teaching of empirical evidence and utilizes relevant theories and concepts to enhance understanding of that evidence. It encourages students to think openly and critically about the intersection of medicine, health and illness with other social forces (for example, family, education, employment, inequalities) and to apply this deeper knowledge and understanding to clinical contexts.

Importance and use of Medical Sociology

The World Health Organization (WHO) indicates the health and illness cannot be simply regarded as biological or medical phenomena, rather there are many sociological components on health and illness.

- Medical knowledge is not just 'scientific facts' but it is developing in relation to wider society. In addition to biomedical cause most of the diseases have social relationship (AIDS, water borne diseases, COVID19 etc.) and social consequences. Ultimately medical sociology helps the health care providers to deal better with patients, attendants and other people as a whole.
- Without sociological knowledge health care providers cannot understand the community people. Medical sociology gives knowledge to them about people's norms, values, customs, traditions, beliefs, laws, religion, moral, percept, arts etc.
- Many diseases have social and environmental relationship (Dengue, typhoid, RTI etc.) which can be reduce by increasing people's social awareness and social interventions.
- Medical sociology helps us to understand our social responsibilities and ways of works in regards to health care delivery.
- It draws our attention to essential worth and dignity of people of the country and abroad.

Key Concepts in Medical Sociology: Health, Disease and Illness

Definition of Health-

WHO (1948) defined health as a state of complete physical, mental, and social well-being, not merely the absence of disease and infirmity. The definition is holistic, and it presents three major interrelated components of health.

Components of health-

Physiological: the functionality of the body biological system. It simply implies the maintenance of homoeostasis. This is often used to infer a soundness of the body. Most often, disease represents a malfunction of a part of the body system or an intrusion of harmful organisms such as a virus or parasite. This may cause a breakdown of the individual affected.

Social: the ability to connect and function as a member of society. This represents the behavioral aspect of human health. Being a member of society is being in the network of social interaction and being able to fulfil social roles and expectations. If an individual is not active in the social network, it represents a form of social pathology- an abnormality, which is an infraction on the norms and values of society.

Mental: This indicates the psychological, emotional, and mental status of the individual. Emotional apathy, fixation, and maladjusted personality constitute a part of the manifestation of illness.

Disease and Illness

Boorse (1975, 1977) was engrossed in a practical and philosophical discussion of what health and disease may entail. He defined disease as a type of internal state which impairs health (i.e., reduces one or more functional ability below typical efficiency). In a simple illustration, disease is a form of pathology or medical problem, defect, or impairment, while illness is a manifestation of such an impairment, defect/pathology, or disability. Illness is a presentation of a medical condition in a way that limits the functional capability of an individual in the society. This is why Nordenfeldt (1993) observed that to be ill is to be in pain, to be anxious, or to be disabled. The notion of illness fits appropriately into the concept of sick role described by Parsons (1951). It is a situation when an individual consciously feels that he/she is unhealthy, sometimes as a result of discomfort and pain. Therefore, illness is the live-experience of a diseased condition.

The Social Context/Determinants of Health

The social context accounts for exposure and vulnerability to diseases. The roles of the social determinants are considerably important in the understanding of human health. For instance, if the world is able to ensure gender justice and improve standards of living, the disease burden will be significantly reduced.

Age and health: In the context of health and medicine, age is a property of human individuals and groups that denotes the duration of the life span since birth and the membership of a specific cohort or generation. Age is correlated with both health and illness behavior. It is part of the determinants of exposure and preventive behavior. Most lifestyle-related medical conditions are relatively lower among children while some diseases are related to old age. The guardians take most decisions on health behavior on behalf of the school age children. The youth takes self-responsibility of health and often engage in risky behaviors like smoking and alcohol consumption. More so, health and illness behaviors have been observed to be socially and culturally acquired from childhood. Mortality rates vary considerably with age. Higher rates of self-reported poor health were also found among the older age group.

Health, gender and feminism: Gender relates to culturally appropriate behavior of men and women, whereas sex refers to biological differences. A gender-informed analysis of the social patterning of health needs to consider the wider context of social and economic relations between women and men, and recognize the impact of gender inequalities of power and economic resources on the health of both women and men. It is also essential to take account of the importance of diversity (or inequality) among each gender.

Race, ethnicity and health: Ethnicity refers to the identification with a social group – membership of a collectivity on the basis of shared values, beliefs, customs, traditions, language and lifestyles. However, closer examination of the data suggests great diversity, with the extent of any health disadvantage varying across ethnic groups and by condition.

Urbanization and Health

Urbanization is defined as the process of human movement and centralization towards and into cities and urban areas, with the associated industrialization, urban sprawl and lifestyle that brings. It is an inevitable phenomenon that accompanies the development of a country. Cities offer the lure of better employment, education, health care, and culture; and they contribute disproportionately to national economies. However, rapid, and often unplanned urban growth is the source for many of the environmental hazards faced by cities within the developing world. Urbanization affects human health in several ways, from dietary patterns to the physical environment. Substandard housing on marginal land, crowding, increasing levels of air pollution, water pollution and over usage, inadequate sanitation services, inadequate solid waste collection, and motor vehicle traffic and traffic injuries are all associated with rapid growth of urban centers.

Effect of sociology on health with examples

The health care providers must know and take necessary measures about the social and biological components of health promotion, prevention of illness and mortality, early diagnosis of diseases, treatment of sick persons and rehabilitating the handicap.

- **Health promotion:** For health promotion of the people, we need social intervention. For examples they must be motivated to avoid unhealthy foods and take nutritious food which contain optimum protein, carbohydrate, fat, vitamins, minerals and water. People should be motivated to practice adequate physical works, rest, and recreation.

- **Prevention of illness and mortality:** Taking safe drinking water and safe foods can prevent many waters and food borne diseases respectively. A lot of infectious diseases like polio, diphtheria, tetanus, COVID-19 can be prevented by vaccination. Occurrence many cancers can be reduce by avoidance of smoking and reducing environmental pollutions. Healthy lifestyles can reduce obesity, heart diseases. Proper use of sanitary latrine and hand washing can reduce significantly the occurrence of a lot of fecal borne diseases. We can prevent many other diseases and reduce mortality by changing social practice by appropriate social intervention.

- **Early diagnosis of diseases:** There are many diseases which need to be diagnosed early for recovery of patients like most of the cancers, complications of pregnancy, meningitis etc. People should be a social system so that people should be motivated to attain early the health care.

- **Treatment of sick persons:** Getting treatment is fundamental right of people. Every country must develop a social system ensuring treatment of their people irrespective of their financial capabilities.

- **Rehabilitating the handicap:** Once upon time most the handicap people were considered as burden of the family and community. The modern societies developed many systems so that dependencies on others are reduced significantly.

Relationship among Culture Health and Disease

The relationship between culture health and disease is a complex and intricate one. Culture shapes beliefs, attitudes, and practices relating to health and illness, and these, in turn, influence the prevalence, diagnosis, and management of diseases. Culture is a dynamic and multifaceted system of shared values, beliefs, and practices. These elements deeply impact how individuals perceive and approach health and well-being. Cultural practices may either promote health or facilitate the spread of disease. For instance, cultural norms around hygiene, diet, and physical activity profoundly influence individual and community health. Culture plays a significant role in defining mental health and influences how symptoms are expressed, diagnosed, and treated. Understanding the cultural context is crucial for effective mental health care. Cultural attitudes towards mental health can create stigma, making it difficult for individuals to seek help. For example, in some cultures, mental illness may be seen as a sign of weakness or as a spiritual issue. Dietary habits are deeply influenced by cultural norms, affecting both health and disease. Understanding cultural dietary practices can inform public health interventions.

Relation between culture and health with examples

Culture influences health and illness in many ways. There are many cultural factors which have both positive and negative impact on health. Some important factors are:

Concept about etiology of disease and cure: Many people of Bangladesh consider hysteria and epilepsy are due to evil spirit or ghost intrusion. These patients are treated by exorcists to drive away the evil spirit or ghost. Children and pregnant are consider most prone to the effect of evil eyes. Charms (tabiz and kori) used to keep them safe. Many skin diseases are considered due to impure blood, neem leaves are used to treat these patients. Bitter melon are used to treat the patients of diabetes.

Environmental sanitation: Many people of Bangladesh use pond and river water for washing, bathing, and drinking. This contaminated water is responsible for diarrhoea, typhoid and many water borne diseases. Most of the people throw solid wastage indiscriminately which accumulate in water reservoirs, rivers, and soil. It create increase mosquito breed reduce productivity of tress and fish. Still today few people of Bangladesh use open air defecation. Though most of the people use tube well water, these are not in sufficient distance (>200 feet) from latrine.

Food habits: In many families greater part of the foods particularly protein are consumed by men then children then by women. Taking alcohol openly is socially prohibited. Foods such as card, milk, fruits, vegetable are considered to cool the body is not used during fever, cough and asthma. Foods like meat, fish and eggs are considered to heat the body is not used during jaundice, diarrhea, by pregnant women and widows. Food adulteration is very common which strong treat is for people of the country.

Mother and child health: Many people avoid antenatal checkup, medication and prefer home delivery because they consider pregnancy and delivery as natural, these practices increase maternal and child

mortality and morbidity. Some of them do not breastfeed for first 3 days of childbirth because it is considered colostrum is harmful for the babies. Breast feeding, exposure newborn to sun is usual practice in Bangladesh which are beneficial to child. On the other hand, early or late weaning or improper supplementary feeding to child is harmful to the child.

Personal hygiene: Regular brushing and bating is usual practice among people of Bangladesh which good for teeth and shin. Barbers use common instruments for shaving which may spread Hepatitis B, HIV etc. Many people are not exposed sun which is responsible for low vitamin D level. Many people do not wash their hand by soap or ash after defecation or before taking food which is responsible may fecal borne diseases.

Marriage and sexuality: Marriage is universal in the country which great factor low prevalence of AIDS and other sexual diseases in the country. Early marriage is harmful especially for child mother, this practice is disappearing in the country due to law.

Conclusion

By providing an understanding of these social contexts, sociological knowledge contributes to the development of policy and practice in a wide range of areas. It encourages students to think openly and critically about the intersection of medicine, health and illness with other social forces (for example, family, education, employment, inequalities) and to apply this deeper knowledge and understanding to clinical contexts.

Group work- 1

Apply knowledge about inequalities to medical practice:

- Use national statistics to explore social determinants of health in different areas within the country
- Identify and research a recent healthcare intervention designed to promote equality
- Select a disease or public health concern, research its demographic profile and design health strategies suited to different populations
- Research the relationship between health care provided by the medical profession and government and third sector agencies (for example, homeless day centres, drug and alcohol services, domestic abuse/rape victim support services)
- Develop a working understanding of relevant legislation
- Develop a case study of interventions to target inequalities that demonstrate grass-root community engagement
- Undertake a piece of reflective writing to compare how the socio-economic status of doctors might impact on how they view patients (drawing on insights from literature, individual experience and the views of others)

Group work -2

Apply an understanding of the patient experience to medical practice:

- Draw on models of shared decision making to reflect on consultations with patients; identify and reflect on aspects that are easier/more challenging to practice
- Utilize an understanding of illness narratives to reflect on what patients are saying about their experiences.

Bibliography

1. American Sociological Association 1965 Guide to Graduate Departments of Sociology. Washington, D.C.: American Sociological Association. 1972-73
2. Guide to Graduate Departments of Sociology. Washington, D.C.: American Sociological Association
3. Hafferty, F. W., & Castellani, B. (2006). Medical sociology. In Clifton D. Bryant & Dennis L. Peck (Eds.), 21st century sociology: A reference handbook (pp. 331-338). Califonia: Sage Publications.
4. Geertz, C. (1973). The Interpretation of Cultures. Basic Books. https://web.mit.edu/allanmc/www/geertz.pdf
5. Farmer, P. (1999). Infections and Inequalities: The Modern Plagues. University of California Press.
6. Marmot, M. (2005). Social Determinants of Health Inequalities. Lancet, 365(9464), 1099-1104.
7. WHO. (2008). Traditional Medicine. World Health Organization. https://www.who.int/news-room/questions-and-answers/item/traditional-medicine
8. Amzat J, Razum O. Sociology and Health. Medical Sociology in Africa. 2014 Feb 28:1–19. doi: 10.1007/978-3-319-03986-2_1. PMCID: PMC7121984.
9. Society definition & meaning [Internet]. Merriam-Webster. Merriam-Webster; [cited 2022Oct5]. Available from: https://www.merriam-webster.com/dictionary/society
10. Introduction to sociology - free-ebooks.net [Internet]. [cited 2022Oct4]. Available from: https://www.free-ebooks.net/science-textbooks/Introduction-to-Sociology-OpenStax/pdf?dl&preview
11. Boland RJ, Verduin ML, Ruiz P, Sadock BJ. Contributions of the Sociocultural Sciences. In: Kaplan & Sadock's Synopsis of Psychiatry. 11th ed. Philadelphia: Wolters Kluwer; 2022. p. 198.
12. What is medical sociology? - best value schools [Internet]. BestValueSchools. 2022 [cited 2022Oct6]. Available from: https://www.bestvalueschools.com/faq/what-is-medical-sociology/
13. Fredericw H, Brian C. Medical sociology. 21st Century Sociology. 2007.
14. Nature versus nurture [Internet]. Wikipedia. Wikimedia Foundation; 2022 [cited 2022Oct6]. Available from: https://en.wikipedia.org/wiki/Nature_versus_nurture
15. Park K. Park's textbook of preventive and social medicine. 25th ed. Pune: Banarsidas Bhanot; 2019;14.
16. Disease [Internet]. Wikipedia. Wikimedia Foundation; 2022 [cited 2022Oct6]. Available from: https://en.wikipedia.org/wiki/Disease
17. Illness definition & meaning [Internet]. Merriam-Webster. Merriam-Webster; [cited 2022Oct5]. Available from: https://www.merriam-webster.com/dictionary/illness
18. A Core Curriculum for Sociology in UK Undergraduate Medical Education. Collett, Tracey. http://hdl.handle.net/10026.1/8596

Topic 3: Etiquette in Using of Social Media

Md. Enayet Hossain; Shishir Ranjan Chakraborty

Outline	
Topic	**Etiquette in Using of Social Media**
Learning objectives	At the end of the session, students will be able to By the end of the session learners will be able to: • define etiquette in using social media • understand current scenario of abuse of social media delete this Delete this part of the table • describe the importance of social media in medical education • know the importance of etiquette in using of social media • learn the ways of etiquette in using social media
Method	• Interactive lecture • Seminar
Time	• One and half hour

Defining Etiquette in using social media

Socialization is an innate human need. As human beings, when we communicate with those around us, we become aware of the existence of some social regulators such as laws, moral rules, and traditions that regulate the relationships we establish.

Among these rules, etiquette rules have a special place. Etiquette rules are the rules of respect and courtesy that should be maintained in interpersonal relations.

What is Etiquette?

Etiquette is a set of custom and rules for polite behavior, especially in a particular class of people or in particular profession. It describes the requirements of behavior according to the convention of the society.

Types of Etiquette?

- Workspace etiquette
- Public speaking etiquette
- Social media etiquette

Today, in addition to face-to-face communication, there is a very intense socialization on digital platforms. Interpersonal communication evolved into a different internet-based relationship network. The emergence of social networks has provided a great way to interact with people regardless of whether it's for business or socializing, and has given ordinary people a voice and the ability to express themselves freely.

This is why one must abide by a social code when using social media which should make the experience pleasant and safeI for everyone. The rules called **Netiquette**, in the simplest definition, are regulations that beautify and protect social relations established through the internet.

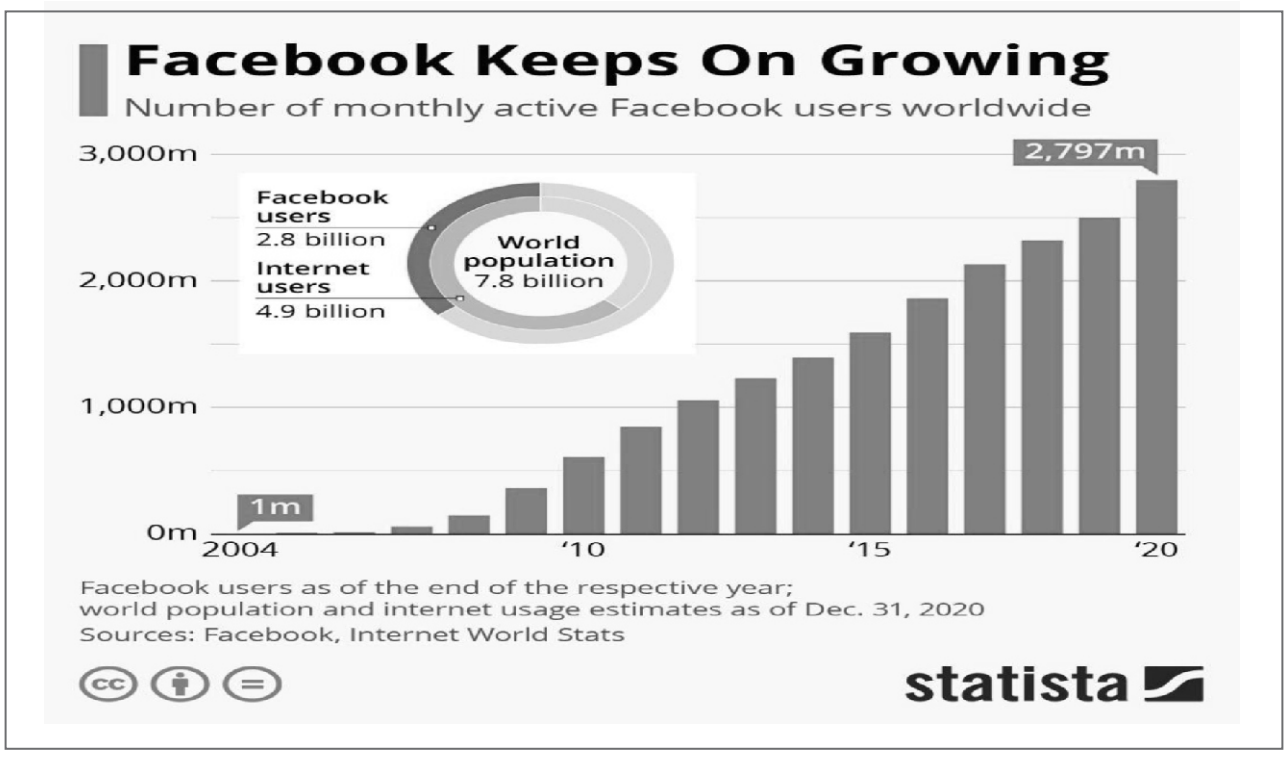
Social Media Etiquette or netiquette is essentially a loose and continuously evolving set of rules governing online communication behavior. It addresses maintaining one's own and others' dignity, respect and privacy.

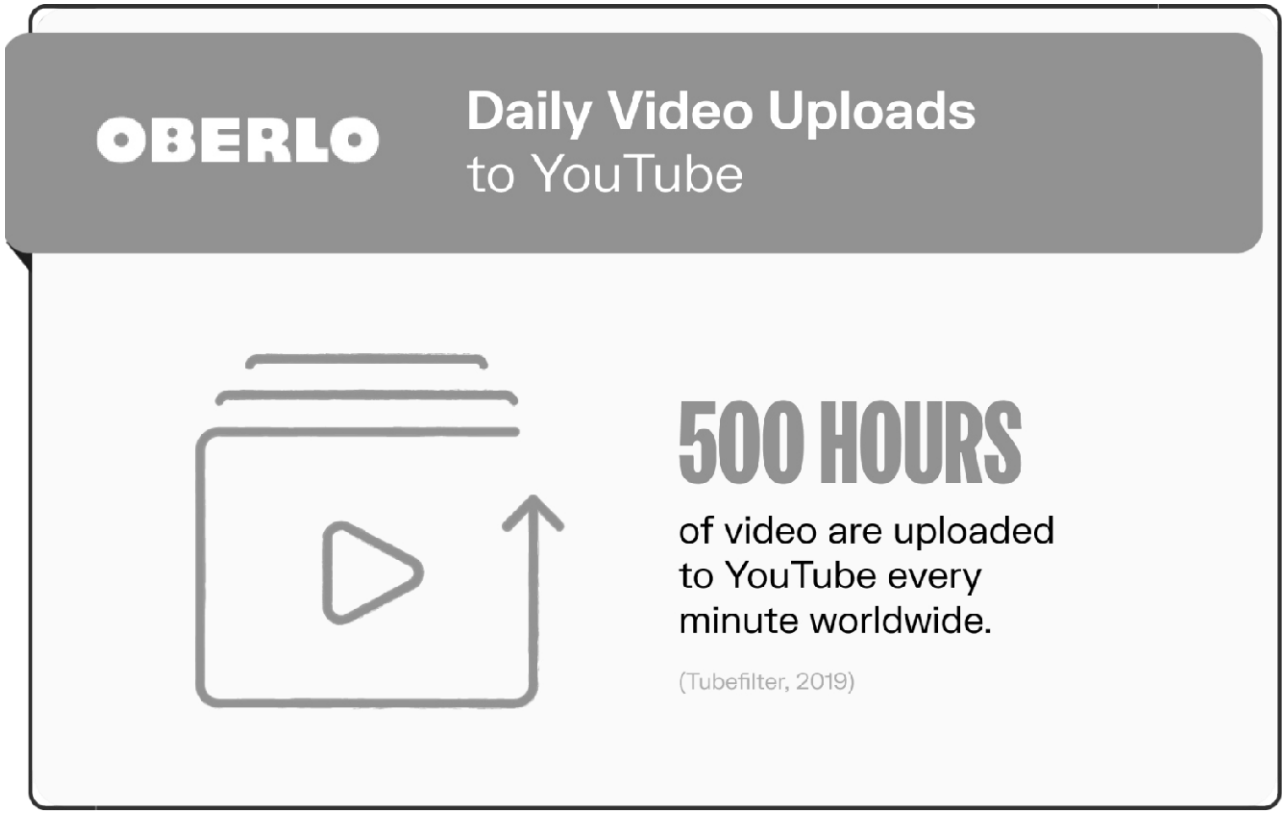
Cambridge Dictionary defines "netiquette" as "A set of rules for proper behavior among users in a computer network (the Internet) when exchanging messages" (Cambridge Dictionary, 2023).

Collins Dictionary defines the same concept as "Netiquette is the set of rules and customs that it is considered polite to follow when you are communicating through email or the internet".

Abuse of Social Media

Social media has been around since 1997. But it wasn't until 2004 that social media really began to take off. Now there are 4.26 billion people that use social media worldwide. That's more than half of the total world population! The rapid growth in social media usage has completely changed the way we live and interact with each other.





Some Social Media User Stats....

- About 58.4% of the world's population uses social media today

- Almost 75% of the world's population over the age of 13+ uses social media in some form.
- The average daily social media usage is 2 hours and 27 minutes.
- The current global life expectancy in 2024 is about 73 years. If someone signs up for a social media account when they are 16 and lives until they are 73, they will spend a total of 2,995,920 minutes on social media. That equates to be 5.7 years of your life dedicated to social media.

Social Media Addiction in Young People

As social media use becomes more accepted and expected, more people are beginning to experience the real-world negative impacts of social media addiction. About 4.69% of social media users are addicted to it. According to research from the University of Michigan, an estimated 210 million people worldwide suffer from addiction to social media and the internet. Young social media users aged 18 to 22 years account for a shocking 40% of all Americans addicted to social media.

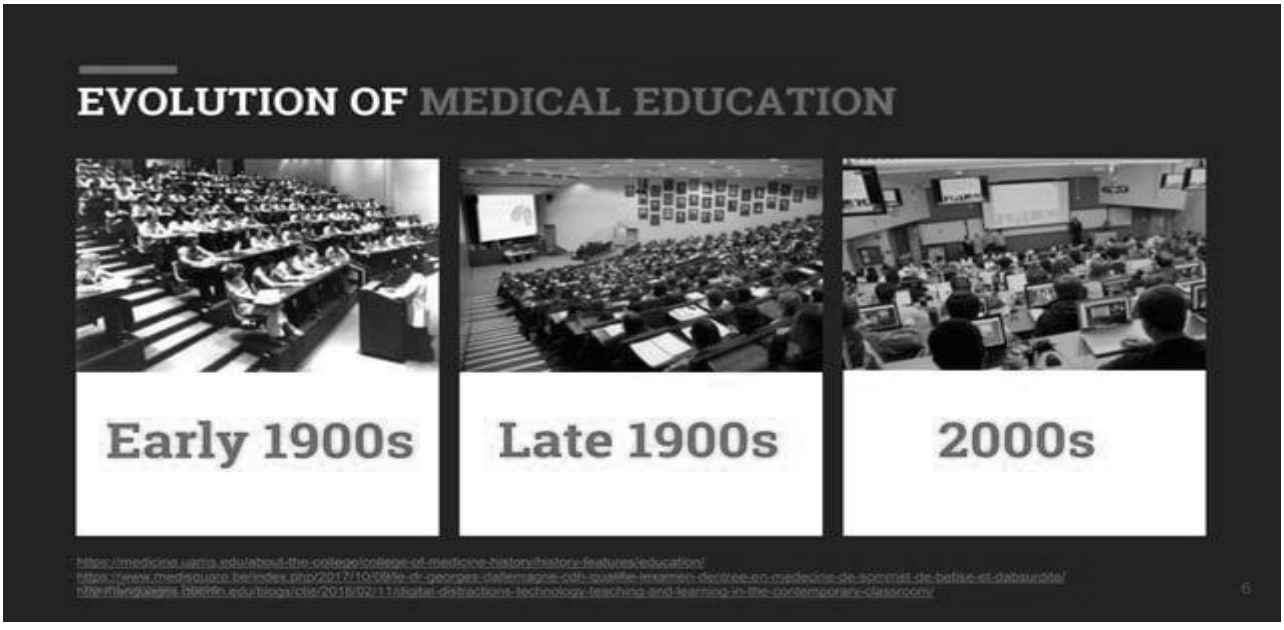
For children and teens, whose brains are still developing, social media risks rewiring young brains to depend on instant rewards and addictive behavior. Such concern is due to the way social media platforms encourage endless scrolling, impulsive behaviors, and the need for instant gratification. According to research, kids 8-12 years old get an average of 4 hours and 44 minutes of screen time per day.

"Although there are important benefits, social media can also provide platforms for bullying and exclusion, unrealistic expectations about body image and sources of popularity, normalization of risk taking behaviors, and can be detrimental to mental health."

– Claude Mellins (Professor of Medical psychology in the Departments of Psychiatry and Sociomedical Sciences, Columbia University Mailman School of Public Health)

Negative Aspects of Social Media

- Distract from homework, exercise and family activities.
- Social media sites harm employee's productivity. 51% of users aged 25-34 years check social media at least once at work.
- When alerted to a new post or tweet, it takes about 20-25 minutes for the average user to get back to his/her original task.
- Disrupt sleep.
- Social media sites, via advertising, often influence users to spend money.
- Expose persons to online predators, who might try to exploit or extort them.
- Cyber-bullying (the use of electronic media to bully someone usually by intimidating or threatening messages) is common on social media, often leading to emotional trauma.
- Lead to information that is biased or not correct.
- Become a means to spread rumors or share too much personal information.



Importance of Social Media in Medical Education

Medical education has slightly shifted from traditional classroom approach to internet web technology-based classes. Learners often prefer virtual classes and different web-based platforms over traditional teaching.

To make learning more interactive different applications of social media are preferred nowadays in medical education. As educators, it is no longer a question of whether social media has educational applications, rather we should be asking how best to utilize this media in field of Medical education.

Whyte W, Hennessy C
MedEdPublish
https://doi.org/10.15694/mep.2017.000083

amee MedEdPublish

Systematic review Open Access

Social Media use within medical education: A systematic review to develop a pilot questionnaire on how social media can be best used at BSMS

William Whyte[1], Catherine Hennessy[2]

Corresponding author: Mr William Whyte bsms3309@uni.bsms.ac.uk
Institution: 1. Brighton and Sussex Medical School, 2. Brighton and Sussex Medical School
Categories: Research in Medical Education, Teaching and Learning, Technology

"The use of social media allows students to transcend geographical barriers. Social media tools provided a valuable means of connecting learners to resources and activities to which their access would otherwise be limited by geographic distance or scheduling barriers."

Key benefits of social media in the field of medical education are professional education and training, patient education and health promotion. Recently social media has played a major role in continuing medical education during the Covid 19 pandemic. Case based discussion, journal clubs, Scientific sessions, poll-based quizzing and small peer communities of practice etc. are different modalities which can be utilized for learning. Instant messaging services such as We Chat and WhatsApp provide intensive dialogue to facilitate learning and easy group communication. To utilize social media at its fullest the materials posted need evaluation for their accuracy and conciseness. It should be more engaging to users. Choosing the right platform, the amount and quality of the information shared should be ensured for optimal benefit.

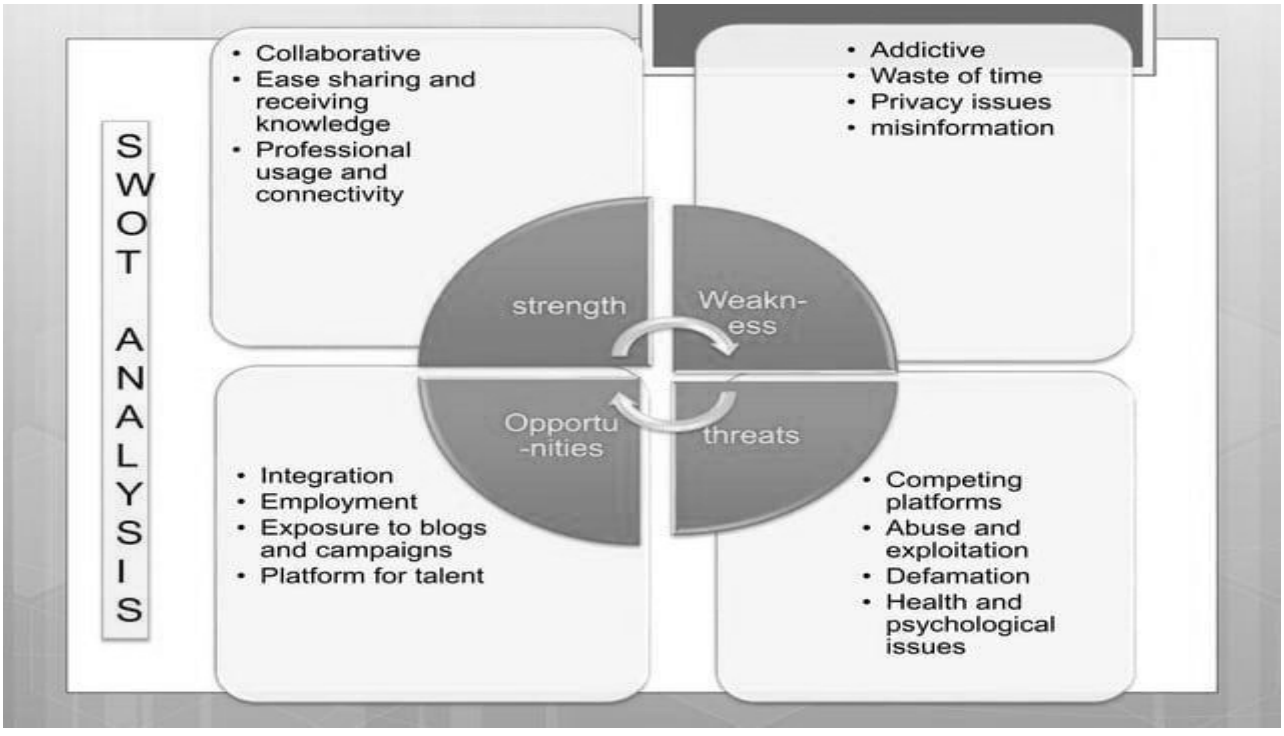


Fig: SWOT analysis of social media usage

Some Examples of Social Media Use in Medical Education:

Fig: Applications of social media platforms in medical education

From Osler to Twitter: Journal clubs

Journal clubs have been designed to teach critical appraisal skills to physicians-in-training. Father of Modern Medicine, Sir William Osler, used to organize Journal clubs at McGill university in 1875 and since then Journal club has evolved as a forum for continued medical education. With the Free Open Access Medical Education (FOAMed), journal clubs have become more interactive and conducted online on social media platforms.
Social media-based journal clubs are free, time-efficient, and publicly accessible means to facilitate international discussions regarding clinically important evidence-based research.

Examples of twitter based journal clubs are @ADC_JC (Archives of Diseases in Childhood's Journal Club), @EBNursingBMJ (Helping nurses & midwives use evidence in practice), @igsjc (The International General Surgery Journal Club), @iurojc (International Urology Journal Club), @NephJC (A twice monthly nephrology journal club).

Digital scholarship and career advancement

In early 2016, the Mayo Clinic Academic Appointments and Promotions Committee began including digital and social media scholarship among the criteria considered in review of proposals for academic advancement.
Similarly, other platforms like blogs, podcasts are also in common use now-a-days for continuing medical education.

Digital scholarship and career advancement

In early 2016, the Mayo Clinic Academic Appointments and Promotions Committee began including digital and social media scholarship among the criteria considered in review of proposals for academic advancement.

Similarly, other platforms like blogs, podcasts are also in common use now-a-days for continuing medical education.

Radiopaedia (Famous radiology blog)

Life in the Fast Lane (Famous ECG blog)

LIFE IN THE FASTLANE

ECG Axis Interpretation

Mike Cadogan and Robert Buttner · Apr 27, 2022

HOME > ECG LIBRARY

Cardiac axis represents the sum of depolarisation vectors generated by individual cardiac myocytes. Clinically is is reflected by the ventricular axis, and interpretation relies on determining the relationship between the QRS axis and limb leads of the ECG (below diagram)

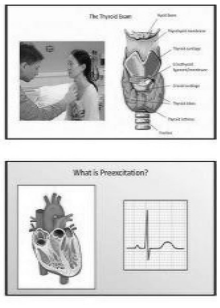
Since the left ventricle makes up most of the heart muscle under normal circumstances, normal cardiac axis is directed downward and slightly to the left:

Normal Axis = QRS axis between -30° and +90°.

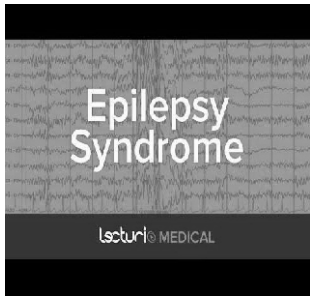
Abnormal axis deviation, indicating underlying pathology, is demonstrated by:

Some Popular Medical Channels On Youtube

Strong Medicine

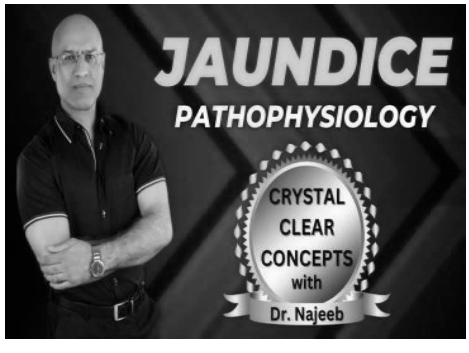


American Heart Association



Lecturio

Osmosis Medical



Dr. Najeeb Lectures

Stanford

Importance of Etiquette in Social Media

Netiquette is essential for maintaining a proper online environment in digital platforms. It reduces misunderstandings and encourages the development of meaningful relationships. Although netiquette, like etiquette, is seen as an "unwritten set of rules" and there are no sanctions, not following these rules is perceived as disrespect. At the same time, the behaviors that people exhibit online also affect their relationships in the real world.

Delete doesn't always mean deleted! Anything posted creates a digital footprint. Therefore, special attention should be paid to what is said and written in internet-based communication.

One of the problems in digital communication, especially in written form, is that the person cannot see his/her interlocutor (except in video calling). Since the facial expressions and gestures of the interlocutor cannot be seen, sometimes communication accidents may occur. People may.

Sometimes unintentionally deviate from the social etiquette rules they follow in face-to-face communication.

Today's medical students are learning in a social media era in which patient confidentiality is at risk. While social media use rises, policy informing appropriate conduct in these media lags behind. Students or trainees might allow public access to their personal profiles, which contain information that is not usually disclosed in a doctor-patient relationship. A breach of patient information and derogatory humor that is easily accessible online poses ethical challenges and raises serious concerns for medical professionalism.

In Bangladesh, most medical college or university now have their own official or unofficial facebook page or group . But, hardly there is any set guidelines that guide the online behavior of their teachers, students, trainees or staffs.

A study in US found that almost all US medical schools have a Facebook presence, yet most do not have policies addressing student's online social networking behavior. 100% (n132) of US medical schools had websites and 95.45% (126/132) had Facebook presence. But, only 13 schools had guidelines with regards to social media usage and only 5 of these guidelines included statements that defined what is forbidden, inappropriate, or impermissible under any circumstances, or mentioned strongly discouraged online behaviors.

Ways of Etiquette in Using Social Media

- Use your real name to maintain a genuine and professional profile.
- In order to get respect from others, it is essential to give respect to them.
- If engagement with a person on a social network heats up, do not be too quick to react. Take a moment to calm down. Never say something that you might regret later.
- It is important to remember that whatever you write, post or share, will be seen by others. Even if you delete it, there are chances that someone might have taken a screenshot.
- It helps to engage with people who tag you in their posts. However, always try to refrain from engaging yourself in hostile, abusive or obnoxious posts.
- Do not use social media for venting anger. It may attract negative attention.
- Do not quote others unless the statements are public. If there is an off the record conversation, it must not be shared.
- If you are sharing a link or a post, do give credit to the source.
- Do not post pictures of people at public events, unless you have their permission.
- It is highly inappropriate to “like” Facebook updates announcing death or major illness/injury. An appropriate comment is more suitable in such a situation.

- Separate your professional life from your personal life on Facebook as it may give your professional acquaintances a bad impression.
- Do not make rash judgments when you interact with people on online forums.
- One of the worst ways of annoying your audience is to tag them in unnecessary posts to get attention. Always keep the tagging relevant.
- Do not attack people based on their gender, ethnicity, orientation etc.
- Social Networks are a great place to share your thoughts, but do take care not to overdo it. There is no need for you to constantly inform people about your activities.
- Do not add people to groups on Facebook unless you have their permission.
- Stealing posts verbatim and quoting them as your own is unethical.
- Adopt a wait and see approach when you post a "breaking news". The best way is to confirm the news before you post it.
- Being gender sensitive is important. Never allow an argument to degenerate into an attack based on gender.
- Repeated follow or friendship requests on a Protected Twitter Account/ Facebook are considered harassment.

Security/Privacy

People spend a lot of time on social networks by interacting with others, updating their profiles, etc. However all good things come with a catch.

Security and Privacy issues are part and parcel of all social networks. There have been many instances of stalking, identity theft or blackmail on social networks. It is best not to share private information on Facebook or other social media. If you must share, do so only in a very restricted circle where there exists a level of trust.

Remain aware that sharing your location, private/personal plans or daily activities on social media can attract stalkers. Do not share your financial details, ID card, or any other documents on social networks. Social media posts of defamation, impersonation, hate speech, incitement to violence, harassment and invasion of privacy all have potential to cause serious harm and therefore may attract criminal prosecution. As in real life, such behavior should be avoided online.

Remember the Golden Rules:

- Treat others as you want to be treated! Treat them as you would in person. Don't change just because you're online.
- Maintain your online reputation.
- Understand the privacy settings of the sites you use.
- Be aware of the permanence of online content.
- Finally, always maintain your professional boundaries.

Rules of diplomatic communication are a good way to follow online:

- Sticking to the subject matter, being non-judgmental.
- Avoiding hasty or broad generalization.
- Avoiding rude or sarcastic remarks.
- Relaxed demeanor, tact.
- Choosing your words carefully.

- You should not permit yourself to be tricked, cajoled or forced into speculating when answering questions.

Conclusion

Today, digital communication channels are making their presence felt more and more in every aspect of our social lives. Interpersonal communication is evolving in a different direction, towards a virtual reality. Digital platforms and social media are not environments where freedoms are experienced unlimitedly and without rules. It should not be forgotten that only the environment is virtual, but the people are real.

The rules of social behavior in our daily lives also apply to the communication we establish through the internet. Acting within the rules of etiquette when communicating with others over the Internet will further strengthen social relations.

The concept of media literacy has gained great importance in recent years. Likewise, digital media literacy should also be considered important and individuals should be made aware of this issue.

Plan of Assessment

SAQ:

1. What is etiquette and netiquette?
2. What are the importances of use of social media in medical education?
3. Write down the abuses of social media.
4. What are ethical issues arise during use of social media?
5. Mention the golden rules of using social media.
6. Case scenario: A rare academic case has been diagnosed by you in medicine ward. You are member of a social media education group and want to share the case there. What precaution do you want to take during sharing this?

Bibliography

- Oral, U. (2023). Netiquette: Fundamentals of Etiquette in Digital Communication. *European Journal of Theoretical and Applied Sciences, 1*(5), 833-847
- Social Media Ethics & Etiquette A 'Bytes for All' Publication, November 2013, v1.0
- Agrawaal, K. K., & Agrawal, A. (2023). Role of Social Media in Medical Education . *Journal of Universal College of Medical Sciences*, *11*(02), 67–70. https://doi.org/10.3126/jucms.v11i02.58135
- Roberts MJ, Perera M, Lawrentschuk N, Romanic D, Papa N, Bolton D. Globalization of Continuing Professional Development by Journal Clubs via Microblogging: A Systematic Review.
- Tullett-Prado D, Stavropoulos V, Gomez R, Doley J. Social media use and abuse: Different profiles of users and their associations with addictive behaviors. Addict Behav Rep. 2023 Jan 21;17:100479. doi: 10.1016/j.abrep.2023.100479
- Kind, T. *et al.* (2010) 'Social media policies at US medical schools', *Medical Education Online*, 15(1). doi: 10.3402/meo.v15i0.5324.
- Cheston, Christine C. MD; Flickinger, Tabor E. MD, MPH; Chisolm, Margaret S. MD. Social Media Use in Medical Education: A Systematic Review. Academic Medicine 88(6):p 893-901, June 2013. DOI: 10.1097/ACM.0b013e31828ffc23.
- www.addictionhelp.com/social-media-addiction/statistics/
- Dos and Don'ts of Social Media Etiquette, By Anna Cairo

Topic 4: Self-directed learning and team learning

Rabiul Alam Md Erfan Uddin; Aniruddha Ghose

Outline	
Topic	Self-directed learning and team learning
Learning objectives	At the end of the session learners will be able to: • explain the terminology: self-directed learning and team learning • determine the strategies for effective self-directed and team learning • mention the advantages and disadvantages of self-directed learning and team learning • describe the means of better learning and examination performance in the MBBS course.
List of contents	• Terminology: Self-directed learning and team learning • Advantages and disadvantages of self-directed learning and team learning • Strategies for effective self-directed learning and team learning • Means for better learning and examination performance in MBBS course.
Method	• Interactive lecture • Seminar
Time	• One and half hour

Self-directed learning (SDL)

Definition:

Self-directed learning is a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing, and implementing appropriate learning strategies, and evaluating learning outcomes.

Self-directed learning is an approach to adult learning in which learners take responsibility for their own learning. These learners can choose their own needs, strategy, and content of the learning. The competency-based learning curriculum, which includes self-directed learning, is more student-centered than earlier teacher-centered traditional learning processes. According to Boyer et al. (2014), self-directed students determine their own learning goals, select resources to achieve these goals, choose their preferred learning strategies, and reflect on the outcome of the learning process.

Self-directed learning has a long history. It dates back as far as the Greek philosophers Socrates, Plato, Aristotle, and ancient Indian 'Gurukul'. Many well-known people are related to self-directed learning. Malcolm Shepherd Knowles was a central figure in the early conceptualization of self-directed learning in the 1900s.

Purpose of self-directed learning:

- To plan and participate in one's own learning activities.
- To develop learners' capacity for learning and thinking.

- To develop a sense of independence by enhancing emancipatory learning.
- To develop problem-solving approaches.
- To develop time management skills.
- To develop decision-making skills.

Methods of self-directed learning:

There are two broad subdivisions of self-directed learning:

- Self-facilitated and
- Self-paced learning.

In self-facilitated learning, content needs to be delivered by a teacher or instructor through:

- face-to-face discussion,
- virtual online, or
- email portal.

In self-paced learning, the learner must choose content, source, and access independently. It is a deep learning process.

Some approaches to conducting SDL are:

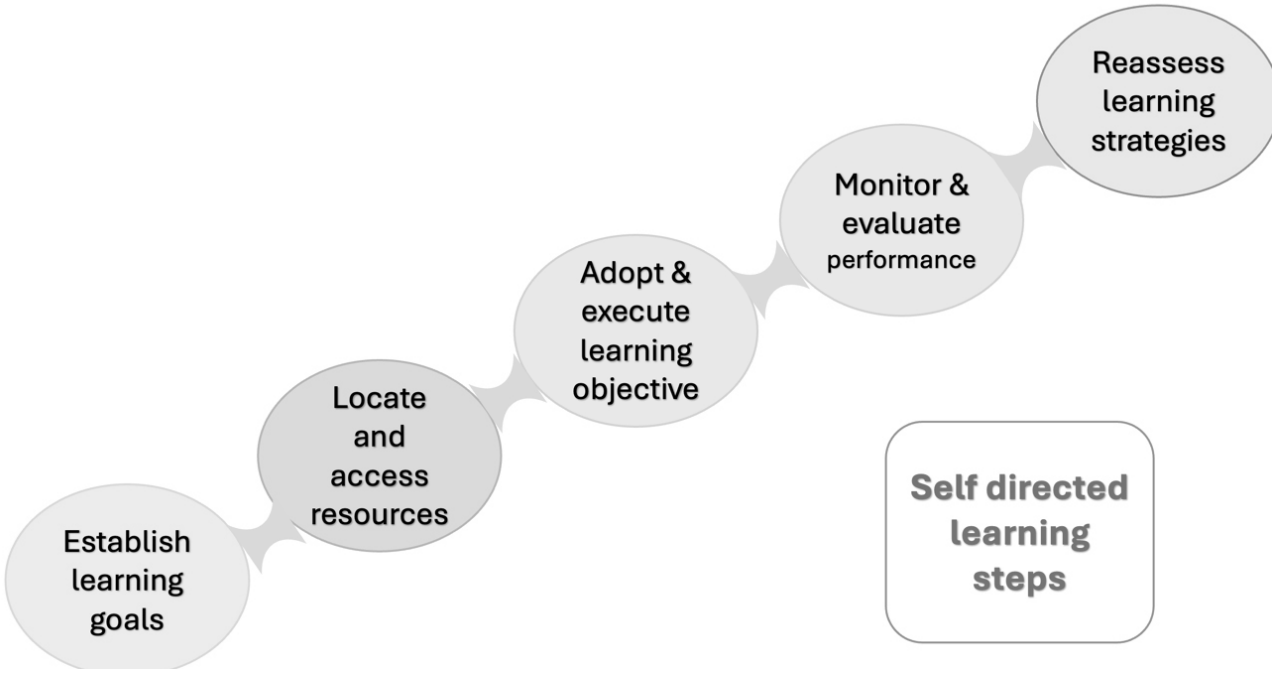
- audiovisual lectures,
- flipped classrooms,
- case-based learning,
- problem-based learning,
- small group discussion,
- team-based learning (seminar, journal clubs, etc.),
- open book examination, and
- doughnut rounds.

Competencies of self-directed learning:

Patterson et al (2002). describe the competencies to be acquired by the students for SDL as follows:

- identification of the own learning gaps in skills and setting the goal for learning
- self-awareness
- evaluating the human and material resources for learning
- critical thinking
- reflection
- critical appraisal
- information management
- teamwork
- self-evaluation
- peer evaluation

Steps of self-directed learning



Process of self-directed learning

It involves a continual process of:

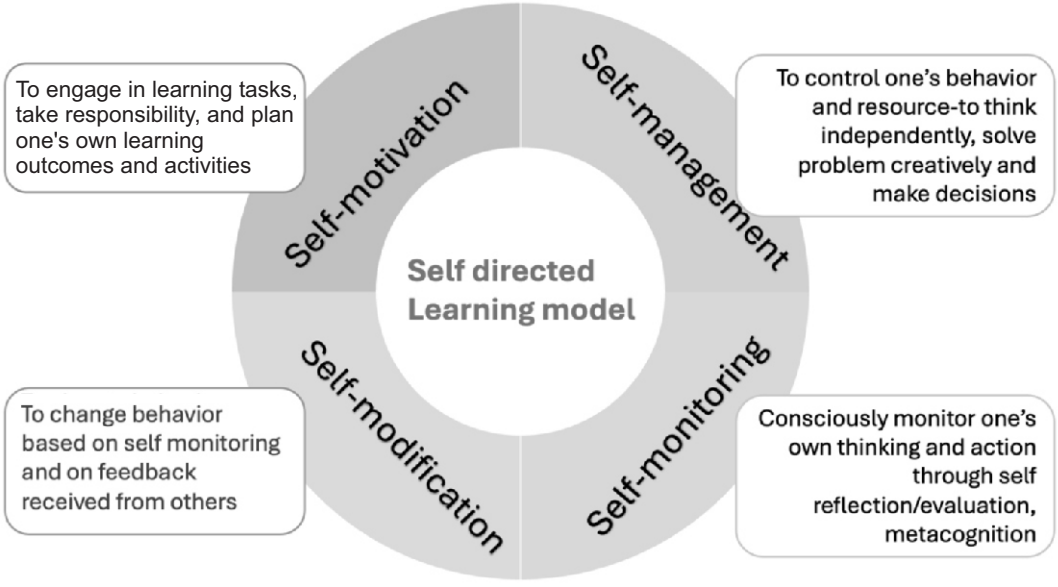
- ❑ self -motivation
- ❑ self-management
- ❑ self-monitoring
- ❑ self-modification

Self-motivation

Motivation affects an individual's learning strategies and cognitive processes (Dweck et al. 1983). It increases the likelihood that people will pay attention to something, study and practice it, and try to learn it meaningfully. It also increases the likelihood that they will seek help when they encounter difficulty. Motivation directs an individual toward certain goals and fulfills their objectives.

Self-management

It includes managing the learning process at its own pace. The learner should establish goals clearly at a point in time for their own interest. To achieve the goal, one needs to set a learning plan. Resources for learning are not a set package, and an ideal learner should roam for resources, locate them, and access them in an appropriate way. Being persistent with the task is a key component of learner's management. One should use a systematic approach to problem-solving, organizational planning, and decision-making. Self-management is a continuous process and should be reformed with self-evaluation.



Self-monitoring:

- Consideration of the ramifications of thoughts, plans, decisions, and actions
- Metacognition - the process of consciously monitoring one's own thinking
- Self-reflection - the process of reflecting on one's own thinking patterns, plans, decisions, and actions
- Self -evaluation.

Self-modification:

- Revises strategies and implies a great effort to maximize his/her effectiveness based on feedback
- Changes in one's behavior are based on the data gathered during self-monitoring and on feedback received from others.

Strategies of Self-directed Learning:

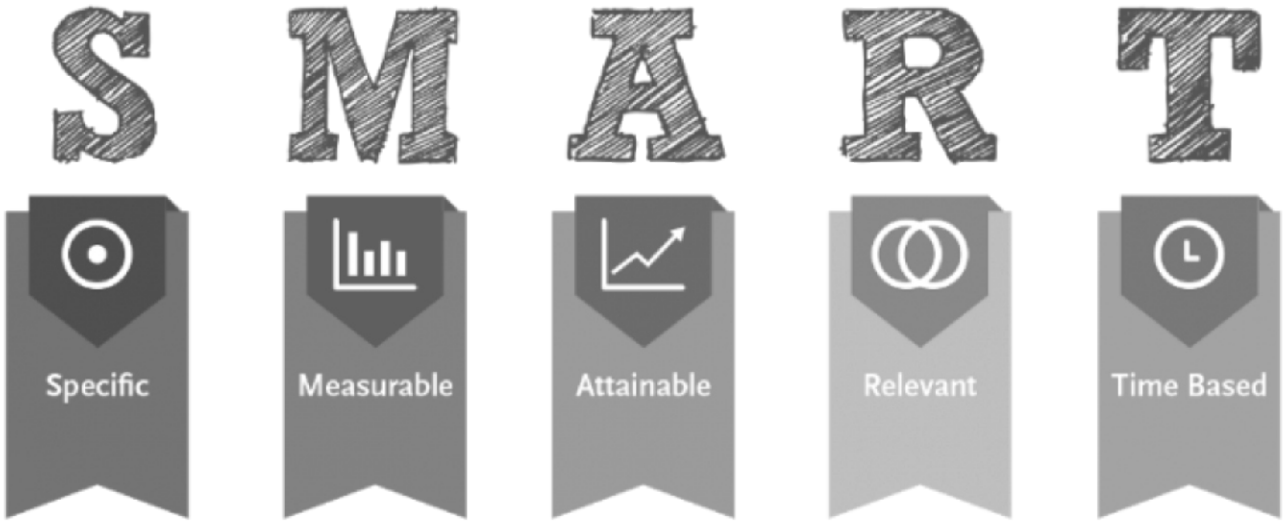
4 self-directed learning strategies that promote student-centered learning:

1. Build up to self-direction:

The development of a scaffold for the classroom is important.

The 'Flip classroom' method may be a good scaffold. In that method, the instructor gives some resources prior to the class, e.g., if a class will be on the management of hypertension, the instructor can give a link to the management of hypertension guidelines. So that students can get information about resources and reliable sources for the class. They can read the guidelines and prepare questions for the class. Even a problem can be given to solve earlier in the class, and after class, homework can be given with a problem.

Building up goals by the learner and instructor is the first step. To fix the goal, the learner should follow the 'SMART' formula.



[https://www.toolshero.com/personal-development/smart-goals/]

The goal of learning should be 'specific, measurable, attainable, relevant and time based.

এখানে কারেকশনটা বুঝি নাই

In the previous example, the goal setting was, “I will prepare compelling indications for starting antihypertensives, including a flowchart of starting and following up on antihypertensives.”

2. Create an environment that is structured for self-directed success:

“The teacher's job is to help create a learning environment with the right kind of structure that can help a student move their project along."

Structure for self-directed learning:

2.1. Personal interest:

Learning opportunities can support students by drawing on their personal interests. This can help with motivation and helps learners feel invested in their project.

Keep in mind, though, that interests will need to be balanced with ability.

Help students identify the unique questions and interests that excite them rather than centering projects around a common or popular “theme.”

2.2. Access to others:

Students need to be able to connect, talk through, and share ideas with others and this doesn't always have to be an adult. Make sure kids have time to talk with one another.

Develop protocols for giving feedback.

Help students identify others- classmates or even other teachers- who are working on similar projects or have expertise in a certain area that they can turn to with a question.

2.3. Time:

In many cases, the college day is constrained by time. Putting away a project at the end of a period can be hard, and picking up where you left off can be disorienting. A class period can feel overwhelming at other times, and learners might not be sure what to tackle next.

Help students articulate their daily goals and what they need to do to accomplish them.

Leave time for students to reflect and think about what they could do differently next time or what they need to accomplish next time.

Instructors should create a team approach in the class so that the same task does not need to be repeated.

Tapping into students' personal interests and providing opportunities to balance those interests with current skill levels.

Giving students meaningful, structured opportunities to interact with their peers- or other teachers—to receive and offer feedback.

Encouraging students as they manage their time, which includes offering opportunities to participate in daily goal setting, reflection, and progress monitoring.

3. **Give students space to test their guesses:**
   Teachers usually used open educational resources during the shift to online instruction to promote self-directed science learning. Trial and error- when deployed intentionally- can actually be a powerful learning strategy for students. Educators often turned to interactive models like simulations. These strategies give students room to manipulate models, observe the results, and refine their thinking. Interactive opportunities like these can be a great way for students to practice self-directed discovery and expand their understanding of new concepts.

4. **Give good, ongoing feedback:**
   Good feedback can be the cornerstone for learning. Feedback should have the following criteria:
   - Clarity
   - Explore exemplars.
   - Co-construct goals and criteria for success (questions and answers are simultaneous)
   - Reflect on progress.

Advantages and disadvantages of self-directed learning

Self-directed learning	Traditional learning
Advantages: • Learner has the freedom to choose topics, learning resources, time, space, and time management. • It is student-centric. • Learners have freedom to practice their preferred style of learning. • It promotes e-Learning. • Deep Learning occurs. • Team working and Collaborative Learning occur. • It focuses on all the learning domains to be acquired in parallel. • Information gatherer, interpreter, analyzer, and user thus have a Transformational Learning. • The target is to be a professional with lifelong learning.	Advantages: • It is teacher controlled. • It inculcates discipline. • It has more opportunities for face-to-face interactions with teachers. • It provides more information in a short time frame. • Influence of teachers on students is higher.

Disadvantages: • Difficulty in accessing learning resources. • Difficulty in selecting teaching source. • Difficulty in accessing tutor/guide. • Language barrier. • Time wastage. • Difficult to assess the process outcome.	Disadvantages: • Predominately unidirectional top-down teaching. • Often monotonous. • Superficial learning. • Focuses predominately on the knowledge domain. • Learning takes place in layers in the stages of the curriculum. • Lacks transformational power.

Skills required for effective learning:

- Goal setting skills.
- Processing skills.
- Decision-making skills.
- Self-awareness.
- Content competence
- Other cognitive skills

1. **Goal setting skills:**
   - Here the individual identifies the problem rather than developing a cognitive ability to engage in problem identification and solving.
   - They have a good observation skills and ability to determine what is important in their learning environment.

2. **Processing skills:**
   - Observing- the ability to see and understand.
   - Seeing and translating- the ability to translate visual information to notes and records.
   - Reading- the ability to read, translate and compared written material.
   - Listing- the ability to receive and process aural information and related it is existing information schemes.

3. **Decision making skills:**
   - This denotes the learner's thinking ability.
   - Learner must develop the ability to identify, prioritize; select validate, evaluate, and interpret information obtained through processing.

4. **Self-awareness:**
   - The successful self-directed learner can be aware of self.
   - It enables the individuals to be aware of their learning processes, their weakness, and strengths to know of their ability to use different in their environment.
   - To know when, how and what is distracting in their environment.
   - To know when they need assistance, and to have a realistic perception of their ability to achieve learning goal.

5. **Content competence:**
   - Here some personal observation indicates that people skilled in certain areas tend to emphasize those while avoiding topics and activities in areas in which they are less competent.
   - For example, one who knows the own language may learn another language based on first language.

6 Other cognitive skills:

- Other cognitive skills appear to be associated with self-directed learning success. They are-
- Sensory- including ability to select, identify and classify information.
- Memory- working memory is important in the processing of information before it is assimilated into existing long-term memory.
- Elaboration-includes the ability to take an item from working memory and process it by imaging, deducing, discriminating generalizing etc.

For better performance of self-directed learning, we should have following criteria:

- The learner should be enthusiastic.
- The materials should be available and appropriate.
- Guide or advisor should be available if needed.
- Learner should be physically and mentally healthy.
- Learner should be able to select the tools and methods that they use, the technologies that could be used to support the approach are largely dependent on the students.
- Working collaboratively with others (people and resources).

Case scenario

A 45-year-old female with tubercular lymphadenopathy came to a physician with persistent cervical lymphadenopathy after 6 months of completed anti-TB treatment. The trainee physician does not know what to do. So, he planned to design a self-directed learning plan to solve the problem. How will he solve the problem?

❑ **Learning objective:**

- To know the treatment of tubercular lymphadenopathy
- To find out the guideline for tubercular lymphadenopathy in the national guideline (if not described in another guideline)
- To know about the causes of the persistence of lymphadenopathy.

❑ **Learning material:**

- National Guideline
- WHO guideline
- Google search for article

☐ Make a summary of the papers.

☐ Decision about continuation of drug or surgery.

❑ **Steps:**

○ Establish learning goals: Determine the treatment duration for tubercular lymphadenopathy.

○ Locate and access resources:

- National guideline
- WHO guideline
- Google search for article

○ Adopt and execute learning objective

- To acquire knowledge about TB lymphadenopathy

- To determine the regimen of TB lymphadenopathy
- To determine the duration of anti-TB drug for this patient

- Monitor and evaluate performance:
  - Student will prefer a synopsis of learning.
  - Teacher will give feedback.

- Reassess learning strategies:
  - Reevaluate the learning strategies

Team learning or co-operative learning (CL)

Self-directed learning is not an individual endeavor where students work in isolation, with only their own resources to help them. Typically, SDL is a social endeavour where students work in cooperative groups with the resources of all group members available to assist and help them.

There are two theories for team or co-operative learning:

- Social independence theory
- Structure-process-outcome theory.

According to Social Interdependence theory, CL is 'students working together to maximize their own and each other's learning' (i.e. achieve shared learning goals).

Competitive learning is students working against each other to achieve an academic goal such as a grade of 'A' that only one or a few students can attain.

Individualistic learning is students working by themselves to accomplish learning goals unrelated to those of other students (Johnson, Johnson & Smith 2006).

Cooperative learning occurs only when five basic elements are structured into the situation. The five elements are:

- positive interdependence,
- individual accountability,
- promotive interaction,
- appropriate use of social skills and
- group processing.

Positive interdependence (i.e. cooperation) exists when individuals perceive that they can reach their goals if and only if the other individuals with whom they are cooperatively linked also reach their goals.

Negative interdependence (i.e., competition) exists when individuals perceive that they can obtain their goals if and only if the other individuals with whom they are competitively linked fail to obtain their goals. No interdependence (i.e., individualistic efforts) exists when individuals perceive that they can reach their goal regardless of whether other individuals in the situation attain or do not attain their goals.

Structure process outcome theory

Based on the theorizing of Kurt Lewin (1935), Goodwin Watson and David Johnson (Watson & Johnson 1972) formulated Structure-Process-Outcome Theory. They posited that the way the goals of a situation are structured determines the processes individuals engage in to achieve the goals, which in turn determines these outcomes of their efforts. The outcomes result from the processes individuals engage in to achieve the goals, not from the goals themselves.

Types of co-operative learning:

There are four types of co-operative learning.

- formal CL,
- informal CL,
- cooperative base groups, and
- constructive controversy

Formal CL consists of students working together, for one class period to several weeks, to achieve shared learning goals and complete jointly specific tasks and assignments (such as problem-solving, completing a curriculum unit, writing a report, conducting an experiment, or having a dialogue about an assigned task).
In formal CL, teachers

- Make a number of pre-instructional decisions.
- Explain the task and the positive interdependence
- Monitor students' learning and intervene within the groups to provide task assistance or to increase students' interpersonal and group skills

Evaluate students' learning and help students process how well their groups functioned.

Assessment plan

SAQ:

1. what is self-directed learning?
2. What is team learning?
3. Mention the strategies for effective self-directed learning .
4. What are the advantages of self directed learning.

Faculty Guide Self Directed Learning (SDL): proposed learning plan can be

Plan: Total time 90 minute

Lectures: 40 Minutes

Interactive seminar/ workshop: 50 minutes

Lectures

Time	Activity	Person	Logistics
5 minutes	Formation of groups		
25 minutes (5 groups) (5 minutes each)	• A common learning goal will beestablished • Each group will be given a topic to carry out self-directed learning to achieve common goal • Each group will discuss the resources required for the topic, the methods of self-directed learning they will be usingto achieve the common goal. • Each group will present their selfdirected learning plan		Flip charts/ PPT for the presentations

10 minutes	Feedback on presentation		
10 minutes 14 minutes	Assessment of Self-Rating for Self-Directed Learning using SRSSDL Tool Distribution of topics for self directed learning to be discussed in the next class	Facilitators	Google form/ Hard copies SRSSDL tool

Assessment

Appendix 1

ID ---------- **Date** ----------

Self-Rating Scale for Self-Directed Learning (SRSSDL) Tool The aim of this tool is to identify learner's levels of self-directedness in learning in higher education. Please read and encircle the most appropriate response to each statement indicating the level at which you rate yourself. Please note that your first reaction to the statement is the most accurate response; therefore, do not spend too long a time on each item.

The 'any other' space is provided for you to add any other issues about self-directedness in learning you think relevant. A 'scoring sheet' is included for you to assess the level of your self-directedness in learning.

Response Key: 5= Always4 = Often 3= Sometimes 2= Seldom1= Never

	Awareness	**Score**				
1.1	Identify my own learning needs	5	4	3	2	1
1.2	I am able to select the best method for my own learning	5	4	3	2	1
1.3	I consider teachers as facilitators of learning rather than providing information only	5	4	3	2	1
1.4	I keep up to date on different learning resources available	5	4	3	2	1
1.5	I am responsible for my own learning	5	4	3	2	1
1.6	I am responsible for identifying my areas of deficit	5	4	3	2	1
1.7	I am able to maintain self-motivation	5	4	3	2	1
1.8	I am able to plan and set my learning goals	5	4	3	2	1
1.9	I have a break during long periods of work	5	4	3	2	1
1.10	I need to keep my learning routine separate from my other commitments	5	4	3	2	1
1.11	I relate my experience with new information	5	4	3	2	1
1.12	I feel that I am learning despite not being instructed by a lecturer	5	4	3	2	1
1.13	Any other: ……	5	4	3	2	1
2	**Learning Strategies**	**Score**				
2.1	I participate in group discussions	5	4	3	2	1
2.2	I find peer coaching effective	5	4	3	2	1
2.3	I find 'role play' is a useful method for complex learning	5	4	3	2	1
2.4	I find inter-active teaching-learning sessions more effective than just listening to lectures	5	4	3	2	1
2.5	I find simulation in teaching-learning useful	5	4	3	2	1
2.6	I find learning from case studies useful	5	4	3	2	1
2.7	My inner drive directs me towards further development and improvement in my learning	5	4	3	2	1

2.8	I regard problems as challenges	5	4	3	2	1
2.9	I arrange my self-learning routine in such a way that it helps develop a permanent learning culture in my life	5	4	3	2	1
2.10	I find concept mapping is an effective method of learning	5	4	3	2	1
2.11	I find modern educational interactive technology enhances my learning process	5	4	3	2	1
2.12	I am able to decide my own learning strategy	5	4	3	2	1
2.13	Any other: ……	5	4	3	2	1
3	**Learning Activities**	**Score**				
3.1	I rehearse and revise new lessons	5	4	3	2	1
3.2	I identify the important points when reading a chapter or an article	5	4	3	2	1
3.3	I use concept mapping/outlining as a useful method of comprehending a wide range of information	5	4	3	2	1
3.4	I am able to use information technology effectively	5	4	3	2	1
3.5	My concentration intensifies and I become more attentive when I read a complex study content	5	4	3	2	1
3.6	I keep annotated notes or a summary of all my ideas, reflections and new learning	5	4	3	2	1
3.7	I enjoy exploring information beyond the prescribed course objectives	5	4	3	2	1
3.8	I am able to relate knowledge with practice	5	4	3	2	1
3.9	I raise relevant question(s) in teaching- learning sessions	5	4	3	2	1
3.10	I am able to analyse and critically reflect on new ideas, information or any learning experiences	5	4	3	2	1
3.11	I keep an open mind to others' point of view	5	4	3	2	1
3.12	I prefer to take any break in between any learning task	5	4	3	2	1
3.13	Any other: ……..	5	4	3	2	1
4	**Evaluation**	**Score**				
4.1	I self-assess before I get feedback from instructors	5	4	3	2	1
4.2	I identify the areas for further development in whatever I have accomplished	5	4	3	2	1
4.3	I am able to monitor my learning progress	5	4	3	2	1
4.4	I am able to identify my areas of strength and weakness	5	4	3	2	1
4.5	I appreciate when my work can be peer reviewed	5	4	3	2	1
4.6	I find both success and failure inspire me to further learning	5	4	3	2	1
4.7	I value criticism as the basis of bringing improvement to my learning	5	4	3	2	1
4.8	I monitor whether I have accomplished my learning goals	5	4	3	2	1
4.9	I check my portfolio to review my progress	5	4	3	2	1
410	I review and reflect on my learning activities	5	4	3	2	1
4.11	I find new learning challenging	5	4	3	2	1
4.12	I am inspired by others' success	5	4	3	2	1
4.13	Any other: ……	5	4	3	2	1

5	Interpersonal Skills	Score				
5.1	I intend to learn more about other cultures and languages I am frequently exposed to	5	4	3	2	1
5.2	I am able to identify my role within a group	5	4	3	2	1
5.3	My interaction with others helps me to develop the insight to plan for further learning	5	4	3	2	1
5.4	I make use of any opportunities I come across	5	4	3	2	1
5.5	I need to share information with others	5	4	3	2	1
5.6	I maintain good inter-personal relationships	5	4	3	2	1
	with others					
5.7	I find it easy to work in collaboration with others	5	4	3	2	1
5.8	I am successful in communicating verbally	5	4	3	2	1
5.9	I identify the need for inter-disciplinary links for maintaining social harmony	5	4	3	2	1
5.10	I am able to express my ideas effectively in writing	5	4	3	2	1
5.11	I am able to express my views freely	5	4	3	2	1
5.12	I find it challenging to pursue learning in a culturally diverse milieu	5	4	3	2	1
5.13	Any other: ……	5	4	3	2	1

Check the total score with the following scoring range in order to identify your level of self-directedness in learning.

Scoring range	Level of Self- directedness in learning	Interpretation
60-140	Low	Guidance is definitely needed from the teacher. Any specific changes necessary for improvement must be identified and a possible complete re-structuring of the methods of learning.
141- 220	Moderate	This is halfway to becoming a self-directed learner. Areas for improvement must be identified, evaluated and a strategy adopted with teacher guidance when necessary.
221- 300	High	This indicates effective self-directed learning. The goal now is to maintain progress by identifying strengths and methods for consolidation of the students' effective self-directed learning.

No matter what your total score, it is essential that you pay particular attention to any individual items of the SRSSDL in which you have scored below 3 as these are the areas in which you may need to improve.

SRSSDL tool source

Williamson SN (2007) The Development of Self-Rating Scale of Self-Directed Learning. Nurse Researcher 14(2): 65-72.

Proposed scenario

Clinical situation presented in the learning environment:

Your patient is the 65 year old Mr Saifur. He is feeling tired and exhausted. He says he's not able to climb stairs the way he used to anymore but says that he has no additional problems. He is able to sleep lying down at night and that he occasionally suffers from water retention in his legs during hot weather.

Arterial hypertension, which he has had for many years, is his only pre-existing condition. No other cardiovascular risk factors. Arterial hypertension, which he has had for many years, is his only pre-existing condition. No other cardiovascular risk factors. Treatment consists of prescription of a diuretic (hydrochlorothiazide 25 mg, once daily), a beta-blocker (metoprolol 50 mg, twice daily) and an ACE inhibitor (enalapril 5 mg, once daily). Mr Saifur reports that the blood pressure measurements he has been taking himself recently had increased to around 160/95 mmHg most days.

Response A

As a working diagnosis, student assume a chronic biventricular heart failure due to a hypertensive coronary illness due to long-term primary arterial hypertension. He increases the ACE-inhibitor dosage to enalapril (10 mg, twice daily) and advise Mr Saifur to lose some weight. Because the case history constellation is so typical, you forgo any further tests and recommend to Mr Saifur to make an appointment for seeing you again in 3 months.

Response B

As a working diagnosis, you assume a chronic biventricular heart failure due to a hypertensive coronary illness due to long-term primary arterial hypertension. But you also consider the possibility of precipitating factors and co morbidities for the hypertension. You plan to examine the patient thoroughly and to have an ECG. You go through guidelines picking up key problems, search for possible answers and analyze the recommendation before next plan.

Implementation of elaborated feedback:

- Response A
  Your considerations are correct but you commence treatment too quickly. In cases of performance loss and suspected heart failure careful physical examination is always required.

- Response B

Your considerations and subsequent steps are correct.

The intermittent leg oedema support right-sided heart failure; the tiredness and exhaustion could be explained with left-sided heart failure with pulmonal congestion and exertional dispnoea. An ECG should be carried out as part of basic diagnostics, also to investigate the question of coronary heart disease and cardiac hypertrophy.

Due to its high prevalence of about 90%, the cause is likely to be the so-called primary or essential arterial hypertension. In conducting a differential diagnosis, you should also especially consider secondary hypertension, anaemia, chronic kidney failure or a primary neuromuscular illness in cases of therapy-resistence under anti-hypertensive triple-drug treatment.

- Your patient at the clinic is Mrs. Maya, a 62-year-old smoker with pre-existing essential (primary) hypertension. She complains of high blood pressure for the past two months, despite using three anti-hypertensive medications as directed. Previous to this, her blood pressure had been well regulated. She would like to know what to do. Physical exam: RR 165/ 95 mmHG, height 163 cm, weight 74 kg, BMI: 27,8 with truncal obesity, no relevant previous illnesses.
- Name one current working diagnosis.
- three routine diagnostic tests
- Her electrolyte laboratory result shows a normal low potassium level (3.6 mmol/l) and no other significant findings. Creatinine (0.9 mg/dl) und urea (18 mg/dl) levels are normal

- Urinalysis: normal. Abdominal ultrasound: kidneys within normal limits; relevant mass found in the area of the right adrenal gland (diameter 3 cm)
- 3) Please name three investigations that you will order to verify whether the mass found is hormone producing and therefore causing secondary hypertension.

From where will you find the answers? How will you learn with your team?

Bibliography

- Boyer, S.L., Edmondson, D.R., Artis, A.B. and Fleming, D. (2014) Self-Directed Learning: A Tool for Lifelong Learning. Journal of Marketing Education, 36, 20-32.https://doi.org/10.1177/0273475313494010
- Brockett, R. G., & Hiemstra, R. (1991). Self-Direction in Adult Learning: Perspectives on Theory, Research, and Practice. London: Routledge.
- B. T. Basavanthappa, "Nursing Education", 2nd edition, 2009, Jaypee Brothers, Medical Publishers, New Delhi, page no. 513-515.
- Charokar K, Dulloo P. Selfdirected Learning Theory to Practice: A Footstep towards the Path of being a Lifelong Learner. J Adv Med Educ S. 2022;10(3):135- 144. DOI: 10.30476/ JAMP.2022.94833.1609.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*(10), 1040–1048. https://doi.org/10.1037/0003-066X.41.10.1040
- Elsa Mentz, Josef de Beer, Roxnne Bailey. Self directed learning for the 21st Century. Implication for higher education. AOSIS (Pty) Ltd, 15 Oxford street, Cape town, South Africa.
- Knowles M. Self-directed learning: A guide for learners and teachers. 1975
- Malcolm S Knowles, Self directed learning: A gude for learners and techers. 1st Edition, Association press, Follett Publishing Company, USA> Page no. 18
- Patterson C, Crooks D, Lunyk Child O. A new perspective on competencies for self-directed learning.J Nurs Educ. 2002;41:25-31.
- Shrestha. R., A Textbook Of Educational Science in Nursing, 1st edition, vidhyarthi pustak bhandar, bhotahity, kathmandu, page no. 96-100.
- Williamson SN (2007) The Development of Self-Rating Scale of Self-Directed Learning. *Nurse Researcher* 14(2): 65 – 72.
- https://doi.org/10.1016/j.compedu.2013.08.00

Topic 5: Medical Ethics

Md Shafiqul Bari; Mohammad Mahfuzul Hoque

Outline	
Topic	**Medical Ethics**
Learning objective	At the end of the session, students will be able to • explain the concept of medical ethics • explain the principles, importance and important issues of medical ethics • explain the key components and principles of informed consent • state differences between ethics and laws • state the Hippocratic oath, the International Code of Medical Ethics, the Declaration of Geneva and important Ethical Codes of Bangladesh Medical & Dental Council (BM&DC) for a medical doctor
List of contents	• Definition and concept of medical ethics • Importance and issues in medical ethics • Classification and fundamental principles of medical ethics Informed consent • Difference between ethics and law • Hippocratic oath and World Medical Association (WMA) Declaration of Geneva • WMA International Code of Medical Ethics • Bangladesh Medical & Dental Council (BM&DC) Code of Professional Conduct, Etiquette and Ethics
Method	• Interactive session • Lecture
Time	One And a half hours

Medical ethics is a branch of ethics that deals with the moral principles, values, and standards governing medical practice and research. It involves complex considerations about the rights, responsibilities, and obligations of healthcare professionals, patients, and society.

Importance of medical ethics

- **Protection of patients:** Medical ethics provides a framework for protecting patients' rights, autonomy, and well-being, ensuring they receive appropriate care and are treated with dignity and respect.
- **Maintaining trust:** Ethical conduct by healthcare professionals is essential for maintaining trust between patients and providers, as well as trust in the healthcare system.
- **Professional integrity:** Medical ethics helps to uphold the integrity and professionalism of healthcare providers, guiding their actions and decisions in morally complex situations.
- **Legal and regulatory compliance:** Adherence to ethical principles is often a legal and regulatory requirement for healthcare professionals and institutions, helping to prevent malpractice and legal liabilities.
- **Ethical decision-making:** Medical ethics provides a structured approach for resolving ethical dilemmas and making difficult decisions in clinical practice, research, and healthcare policy.

Issues in medical ethics

- **End-of-life care:** Decisions about end-of-life care, including euthanasia, physician-assisted suicide, and withdrawal of life support, raise ethical and legal controversies.
- **Healthcare disparities:** Inequities in access to healthcare and disparities in health outcomes based on factors such as race, socioeconomic status, and geographic location pose ethical challenges for healthcare systems and providers.
- **Genetic testing and engineering:** Advances in genetics raise ethical questions about genetic testing, screening, gene editing, and reproductive technologies, including concerns about privacy, discrimination, and the potential for eugenics.
- **Emerging technologies:** The rapid development of technologies such as artificial intelligence, telemedicine, and wearable health devices presents ethical dilemmas related to privacy, data security, informed consent, and equitable access to healthcare.
- **Global health equity:** Addressing global health challenges, such as infectious diseases, pandemics, and access to essential medicines, requires ethical considerations about allocating resources fairly and collaborating across borders.
- **Conflict of interest:** Conflicts of interest, such as financial incentives from pharmaceutical companies or industry relationships, can compromise the integrity of medical research, clinical decision-making, and patient care.
- **Healthcare resource allocation:** Scarce resources, including organs for transplantation, medical supplies, and healthcare personnel, raise ethical dilemmas about how to allocate resources fairly and efficiently, particularly during crises or emergencies.
- **Reproductive rights:** Issues such as abortion, contraception, and reproductive technologies raise ethical questions about bodily autonomy, reproductive justice, and the rights of embryos and fetuses.

Classification of medical ethics considering practical application

- **Clinical ethics**: Clinical ethics involves applying ethical principles and frameworks to specific patient care situations, such as end-of-life decision-making, informed consent, or resource allocation.
- **Research ethics:** Research ethics focuses on the ethical conduct of scientific research involving human subjects. It includes principles such as informed consent, confidentiality, and minimizing risks to participants.
- **Public health ethics:** Public health ethics deals with ethical issues arising in the practice of public health, such as balancing individual liberties with the common good, allocating scarce resources, and addressing health disparities.
- **Organizational ethics:** Organizational ethics pertains to the ethical standards and decision-making processes within healthcare institutions, including issues related to conflicts of interest, patient safety, and professional integrity

The fundamental principles of medical ethics

The principles of medical ethics provide a framework for guiding the actions and decisions of healthcare professionals in their interactions with patients, colleagues, and society. Tom Beauchamp and James Childress, in their textbook ‘Principles of Biomedical Ethics', postulated the "four principles" approach as a common framework for analyzing medical ethics. The four principles are:

striving to promote their well-being and prevent harm. This principle emphasizes the obligation to provide competent and compassionate care, using the most effective interventions available, while minimizing the risks of adverse outcomes.

- Providing an effective broad-spectrum intravenous antibiotic to a patient with bacterial meningitis.

3. Non-maleficence: Non-maleficence entails the duty to avoid causing harm to patients, either through intentional actions or negligence. Healthcare professionals should strive to do no harm to their patients, adhering to ethical standards and clinical guidelines to minimize the risks of adverse events.
   - Stopping carbamazepine in a patient admitted with Stevens-Johnson syndrome

4. Justice: Justice pertains to the fair and equitable distribution of healthcare resources, as well as the fair treatment of patients and communities. This principle emphasizes the importance of allocating healthcare resources based on need, regardless of socioeconomic status, race, gender, or ethnicity.
   - Providing optimal treatment for bacterial meningitis in all patients admitted to any hospital in the community

These four principles-autonomy, beneficence, non-maleficence, and justice- form the foundation of medical ethics and guide ethical decision-making in clinical practice, research, and healthcare policy. While these principles provide a valuable framework for ethical conduct, they may sometimes come into conflict, requiring careful consideration and balancing of competing interests.

Application of principles of ethics in patient care	
Beneficence, nonmaleficence	*Clinical assessment* • Nature of illness (acute, chronic, reversible, terminal)? • Goals of treatment? • Treatment options and probability of success for each option? • Adverse effects of treatment and does benefit outweigh harm? • Effects of no medical/surgical treatment? • If treated, plans for limiting treatment? Stopping treatment?
Respect for autonomy	*Patient rights and preferences* • Has the patient received information about the benefits and risks of the treatment? Has the patient understood the information and given consent? • Is the patient mentally competent? If competent, what are his or her preferences? • If the patient is mentally incompetent, are the patient's prior preferences known? If preferences are unknown, who is the appropriate surrogate?
Beneficence, nonmaleficence, respect for autonomy	*Quality of life (QOL)* • Expected QOL with and without treatment? • Deficits-physical, mental, social-may have after treatment? • Who is judging the QOL of a patient who cannot express themselves? • Recognition of possible physician bias in judging QOL? • Rationale to forgo life-sustaining treatment(s)?
Distributive justice	*External forces and context* • Conflicts of interest: does the physician benefit financially or professionally by ordering tests, prescribing medications, or seeking consultations? • Research or educational considerations that affect clinical decisions or physician orders? • Conflicts of interest based on religious beliefs? Legal issues?

	• Conflicts of interest between organizations (clinics, hospitals) and third-party payers? • Public health and safety issues? • Problems in the allocation of scarce resources?

Informed consent

Informed consent is a foundational ethical and legal requirement in many fields, particularly in healthcare and research. It emphasizes the need for patients to be adequately informed about and voluntarily consent to medical interventions. Key components and principles of informed consent are:

1. **Disclosure:** Providing comprehensive information about the nature of the procedure, treatment, or research. This includes explaining:
   - The purpose of the intervention or study.
   - The procedures involved.
   - Potential risks and benefits.
   - Possible alternatives.
   - The right to withdraw at any time without penalty.

2. **Comprehension:** Ensuring that the individual understands the information provided. This may involve:
   - Using plain language and avoiding medical jargon.
   - Checking for understanding through discussion or questions.
   - Providing additional resources or explanations if needed.

3. **Voluntariness:** Guaranteeing that the individual's consent is given freely without coercion, undue influence, or pressure. This includes:
   - Allowing sufficient time to consider the information.
   - Encouraging questions and discussions with family or advisors.
   - Respecting the individual's decision without any form of retribution.

4. **Competence:** Confirming that the individual has the capacity to make the decision. This involves:
   - Assessing mental and cognitive ability.
   - Considering age, mental health status, and other factors affecting decision-making capacity.
   - In cases where individuals are not competent (e.g., minors, individuals with severe cognitive impairments), obtaining consent from a legally authorized representative.

5. **Documentation:** Recording the consent process appropriately. This may include:
   - Signed consent forms.
   - Detailed notes in medical or research records.
   - Audio or video recordings (if applicable and with permission)

Exceptions to Informed Consent

There are specific situations where informed consent may not be required or may be modified:

- Emergency Situations: In emergencies where immediate medical intervention is necessary to save a life or prevent serious harm, and the patient is unable to give consent, treatment may proceed without formal consent..

- Therapeutic Privilege: In rare cases, a doctor might withhold specific information if disclosing it is believed to cause significant harm to the patient's health. This practice is controversial and should be used sparingly and with caution.
- Incompetent Patients: When patients are not capable of making informed decisions, a legally authorized representative can provide consent on their behalf

Difference between ethics and law

Ethics	Law
Ethics are rules of conduct	Laws are rules developed by governments to provide balance in society and protection to its citizens
Ethics comes from people's awareness of what is right and wrong	Governments enforce laws to their people
Ethics does not carry any punishment to anyone who violates it	The law will punish anyone who happens to violate it
Ethics comes from within a person's moral values	Laws are made with ethics as a guiding principle

Hippocratic oath

Nearly all medical colleges incorporate some form of professional medical oath into their graduation ceremonies. The oldest and most popular of these oaths is the Hippocratic Oath, composed more than 2,400 years ago. The original Hippocratic Oath is an ancient Greek document simply titled "Oath" and is the oldest and most well-known medical oath. During the twentieth century, the content of the Hippocratic oath has been modified. The first recorded use of the oath outside of Greece was at the University of Wittenberg, Germany, in 1508. Finally, in the eighteenth century, the oath was first translated into English, and medical colleges in both Europe and the United States began to use various versions of the Oath in their graduation ceremonies.

World Medical Association (WMA) Declaration of Geneva

It is a declaration of a physician's commitment to the humanitarian goals of the medical profession. During the post-World War II era and immediately after its foundation, the WMA expressed apprehension regarding the state of medical ethics globally and took the responsibility of setting ethical guidelines for physicians worldwide. A study committee was appointed to prepare a "Charter of Medicine" which could be adopted as an oath or promise that every physician worldwide would undertake upon obtaining their medical degree or certification. The WMA's second general assembly in Geneva in 1948 received a modernized version of the ancient Hippocrates oath after two years of intensive study of the oaths and promises submitted by the study committee. The assembly agreed to name it the "Declaration of Geneva." The assembly amended it in 1968, 1983, and 1994, made editorial revisions in 2005 and 2006, and again amended in 2017.

Declaration

The Physician's Pledge
AS A MEMBER OF THE MEDICAL PROFESSION:

I SOLEMNLY PLEDGE to dedicate my life to the service of humanity;

THE HEALTH AND WELL-BEING OF MY PATIENT will be my first consideration; I WILL RESPECT the autonomy and dignity of my patient;

I WILL MAINTAIN the utmost respect for human life;

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;

I WILL RESPECT the secrets that are confided in me, even after the patient has died;

I WILL PRACTISE my profession with conscience and dignity and in accordance with good medical practice;

I WILL FOSTER the honour and noble traditions of the medical profession;

I WILL GIVE to my teachers, colleagues, and students the respect and gratitude that is their due;

I WILL SHARE my medical knowledge for the benefit of the patient and the advancement of healthcare;

I WILL ATTEND TO my own health, well-being, and abilities in order to provide care of the highest standard;

I WILL NOT USE my medical knowledge to violate human rights and civil liberties, even under threat;

I MAKE THESE PROMISES solemnly, freely, and upon my honour.

WMA International Code of Medical Ethics

WMA has developed the International Code of Medical Ethics as a canon of ethical principles for the members of the medical profession worldwide. In concordance with the WMA Declaration of Geneva: The Physician's Pledge and the WMA's entire body of policies, it defines and elucidates the professional duties of physicians towards their patients, other physicians and health professionals, themselves, and society as a whole. The physician must be aware of applicable national ethical, legal, and regulatory norms and standards, as well as relevant international norms and standards. It was adopted by the 3rd General Assembly in October 1949 and revised in 1968, 1983, 2006, and 2022.

General principles

1. The primary duty of the physician is to promote the health and well-being of individual patients by providing competent, timely, and compassionate care in accordance with good medical practice and professionalism.

   The physician also has a responsibility to contribute to the health and well-being of the populations the physician serves and society as a whole, including future generations. The physician must provide care with the utmost respect for human life and dignity, and for the autonomy and rights of the patient.

2. The physician must practise medicine fairly and justly and provide care based on the patient's health needs without bias or engaging in discriminatory conduct on the basis of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, culture, sexual orientation, social standing, or any other factor.

3. The physician must strive to use health care resources in a way that optimally benefits the patient, in keeping with fair, just, and prudent stewardship of the shared resources with which the physician is entrusted.

4. The physician must practise with conscience, honesty, integrity, and accountability, while always exercising independent professional judgement and maintaining the highest standards of professional conduct.

5. Physicians must not allow their individual professional judgement to be influenced by the possibility of benefit to themselves or their institution. The physician must recognise and avoid real or potential conflicts of interest. Where such conflicts are unavoidable, they must be declared in advance and properly managed.

6. Physicians must take responsibility for their individual medical decisions and must not alter their sound professional medical judgements on the basis of instructions contrary to medical considerations.

7. When medically appropriate, the physician must collaborate with other physicians and health professionals who are involved in the care of the patient or who are qualified to assess or recommend care options. This communication must respect patient confidentiality and be confined to necessary information.
8. When providing professional certification, the physician must only certify what the physician has personally verified.
9. The physician should provide help in medical emergencies, while considering the physician's own safety and competence, and the availability of other viable options for care.
10. The physician must never participate in or facilitate acts of torture, or other cruel, inhuman, or degrading practices and punishments.
11. The physician must engage in continuous learning throughout professional life in order to maintain and develop professional knowledge and skills.
12. The physician should strive to practise medicine in ways that are environmentally sustainable with a view to minimising environmental health risks to current and future generations.

Duties to the patien

13. In providing medical care, the physician must respect the dignity, autonomy, and rights of the patient. The physician must respect the patient's right to freely accept or refuse care in keeping with the patient's values and preferences.
14. The physician must commit to the primacy of patient health and well-being and must offer care in the patient's best interests. In doing so, the physician must strive to prevent or minimise harm for the patient and seek a positive balance between the intended benefit to the patient and any potential harm.
15. The physician must respect the patient's right to be informed in every phase of the care process. The physician must obtain the patient's voluntary informed consent prior to any medical care provided, ensuring that the patient receives and understands the information needed to make an independent, informed decision about the proposed care. The physician must respect the patient's decision to withhold or withdraw consent at any time and for any reason.
16. When a patient has substantially limited, underdeveloped, impaired, or fluctuating decision-making capacity, the physician must involve the patient as much as possible in medical decisions. In addition, the physician must work with the patient's trusted representative, if available, to make decisions in keeping with the patient's preferences, when those are known or can reasonably be inferred. When the patient's preferences cannot be determined, the physician must make decisions in the patient's best interests. All decisions must be made in keeping with the principles set forth in this Code.
17. In emergencies, where the patient is not able to participate in decision making and no representative is readily available, the physician may initiate an intervention without prior informed consent in the best interests of the patient and with respect for the patient's preferences, where known.
18. If the patient regains decision-making capacity, the physician must obtain informed consent for further intervention.
19. The physician should be considerate of and communicate with others, where available, who are close to the patient, in keeping with the patient's preferences and best interests and with due regard for patient confidentiality.
20. If any aspect of caring for the patient is beyond the capacity of a physician, the physician must consult with or refer the patient to another appropriately qualified physician or health professional who has the necessary capacity.

21. The physician must ensure accurate and timely medical documentation.
22. The physician must respect the patient's privacy and confidentiality, even after the patient has died. A physician may disclose confidential information if the patient provides voluntary informed consent or, in exceptional cases, when disclosure is necessary to safeguard a significant and overriding ethical obligation to which all other possible solutions have been exhausted, even when the patient does not or cannot consent to it. This disclosure must be limited to the minimal necessary information, recipients, and duration.
23. If a physician is acting on behalf of or reporting to any third parties with respect to the care of a patient, the physician must inform the patient accordingly at the outset and, where appropriate, during the course of any interactions. The physician must disclose to the patient the nature and extent of those commitments and must obtain consent for the interaction.
24. The physician must refrain from intrusive or otherwise inappropriate advertising and marketing and ensure that all information used by the physician in advertising and marketing is factual and not misleading.
25. The physician must not allow commercial, financial, or other conflicting interests to affect the physician's professional judgement.
26. When providing medical care remotely, the physician must ensure that this form of communication is medically justifiable and that the necessary medical care is provided. The physician must also inform the patient about the benefits and limitations of receiving medical care remotely, obtain the patient's consent, and ensure that patient confidentiality is upheld. Wherever medically appropriate, the physician must aim to provide care to the patient through direct, personal contact.
27. The physician must maintain appropriate professional boundaries. The physician must never engage in abusive, exploitative, or other inappropriate relationships or behaviour with a patient and must not engage in a sexual relationship with a current patient.
28. In order to provide care of the highest standards, physicians must attend to their own health, well-being, and abilities. This includes seeking appropriate care to ensure that they are able to practise safely.
29. This Code represents the physician's ethical duties. However, on some issues there are profound moral dilemmas concerning which physicians and patients may hold deeply considered but conflicting conscientious beliefs.

    The physician has an ethical obligation to minimise disruption to patient care. Physician conscientious objection to provision of any lawful medical interventions may only be exercised if the individual patient is not harmed or discriminated against and if the patient's health is not endangered.

    The physician must immediately and respectfully inform the patient of this objection and of the patient's right to consult another qualified physician and provide sufficient information to enable the patient to initiate such a consultation in a timely manner.

Duties to other physicians, health professionals, students, and other personnel:

30. The physician must engage with other physicians, health professionals and other personnel in a respectful and collaborative manner without bias, harassment, or discriminatory conduct. The physician must also ensure that ethical principles are upheld when working in teams.
31. The physician should respect colleagues' patient-physician relationships and not intervene unless requested by either party or needed to protect the patient from harm. This should not prevent the physician from recommending alternative courses of action considered to be in the patient's best interests.

32. The physician should report to the appropriate authorities conditions or circumstances which impede the physician or other health professionals from providing care of the highest standards or from upholding the principles of this Code. This includes any form of abuse or violence against physicians and other health personnel, inappropriate working conditions, or other circumstances that produce excessive and sustained levels of stress.
33. The physician must accord due respect to teachers and students.

Duties to society

34. The physician must support fair and equitable provision of health care. This includes addressing inequities in health and care, the determinants of those inequities, as well as violations of the rights of both patients and health professionals.
35. Physicians play an important role in matters relating to health, health education, and health literacy. In fulfilling this responsibility, physicians must be prudent in discussing new discoveries, technologies, or treatments in non-professional, public settings, including social media, and should ensure that their own statements are scientifically accurate and understandable.

    Physicians must indicate if their own opinions are contrary to evidence-based scientific information.
36. The physician must support sound medical scientific research in keeping with the WMA Declaration of Helsinki and the WMA Declaration of Taipei.
37. The physician should avoid acting in such a way as to weaken public trust in the medical profession. To maintain that trust, individual physicians must hold themselves and fellow physicians to the highest standards of professional conduct and be prepared to report behaviour that conflicts with the principles of this Code to the appropriate authorities.
38. The physician should share medical knowledge and expertise for the benefit of patients and the advancement of health care, as well as public and global health.

Duties as a member of the medical profession

39. The physician should follow, protect, and promote the ethical principles of this Code. The physician should help prevent national or international ethical, legal, organisational, or regulatory requirements that undermine any of the duties set forth in this Code.
40. The physician should support fellow physicians in upholding the responsibilities set out in this Code and take measures to protect them from undue influence, abuse, exploitation, violence, or oppression.

Bangladesh Medical & Dental Council (BM&DC) Code of Professional Conduct, Etiquette and Ethics

In exercise of the power conferred under sections 5 (22) of the Bangladesh Medical and Dental Council Act, 2010, BM&DC published a code of professional conduct, etiquette and ethics to be followed by all registered medical practitioners. The code is addressed to doctors and is also intended to let the community know what they can expect from doctors. It is consistent with the Declaration of Geneva and the international code of medical ethics, issued by the WMA. This code is described as five major headings

No	Heading	Subheading
1	Introduction	1.1 Purpose of the code
		1.2 Use of the code
		1.3 What the code does not do
		1.4 Professional values and qualities of doctors
		1.5 Declaration before registration
2	Providing good patient care	2.1 Develop and maintain professional performance
		2.2 Apply knowledge and experience to practice
		2.3 In providing clinical care you must
		2.4 Medical records and confidentiality
		2.5 Safety and quality
		2.6 Effective communication, partnership and teamwork
		2.7 Clinical research
		2.8 Maintaining trust
3	Professional information dissemination	3.1 Information provided by doctor to patient or public
		3.2 Such information must not
		3.3 Practice promotion
		3.4 Dissemination of service information to the public
		3.5 Dissemination of service information to patient
		3.6 Health education activities
		3.7 Specialist title
		3.8 Information about medical innovations
4	Financial arrangements	4.1 Fees
		4.2 Financial relationship with health care organizations
		4.3 Improper financial transactions
5	Professional misconduct and disciplinary issues	5.1 Abuse of the privileges and dereliction of professional duty
		5.2 Improper personal relationship with patients
		5.3 Untrue or misleading certificates and similar documents
		5.4 Disparagement of other medical practitioners
		5.5 Practice in association with non-qualified persons
		5.6 Covering or improper delegation of medical duties to Non-qualified persons
		5.7 Criminal conviction
		5.8 Misuse of professional skills
		5.9 Adverse disciplinary findings by other professional bodies

Some important codes of professional conduct, etiquette, and ethics are as follows

Complementary or alternative treatment

- A medical professional must not prescribe any drug or method related to complementary or alternative treatment modality even if he claims to be acquainted with those

Confidentiality

- Protect patients' privacy and right to confidentiality, unless the release of information is required by law or by public-interest consideration even after the death of the patient
- In the exceptional circumstances of spouses or other partners being at risk, the need to disclose the position to them might be more pressing, the doctor should urgently seek the patient's consent to disclosure. If this is refused, the doctor may, given the circumstances of the case, consider it a duty to inform the spouse or other partner
- Doctors involved in the diagnosis and treatment of HIV infection or AIDS must endeavor to ensure that all allied health and ancillary staff, e.g. in laboratories, fully understand their obligations to maintain confidentiality at all times
- A doctor should not publish photographs or case reports of patients without their permission in any medical or other journal in a manner by which their identity could be known

Termination of pregnancy

- Doctors performing termination of pregnancy must observe the principles laid down in the laws of Bangladesh governing this aspect, and other relevant provisions.
- A pregnancy may be terminated only if two registered medical practitioners are of the opinion, formed in good faith, that the continuance of the pregnancy would involve risk to the life of the pregnant woman or injury to the physical or mental health of the pregnant woman or there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormality as to be seriously handicapped

Specialist title

- Only doctors who have recognized post graduate degree and that is mentioned in the register of BM&DC are recognized as specialists and can use the title of “specialist in a specialty. Only doctors who have recognized post graduate degree and that is mentioned in the register of BM&DC are recognized as specialists, and can use the title of “specialist in a specialty”
- A non-specialist is not allowed to use any misleading description or title implying specialization in a particular area, such as “doctor in cardiology” “PGT”, “FCPS (P1)” FCPS (P2)”, “MD (Thesis)”etc.

Visiting cards and prescription slips: May only carry the following information

a. Name of the doctor with the prefix Dr.	f. Name and logo of the medical establishment with which the doctor is associated
b. Name of the practice	g. Consultation hours
c. Names of partners, assistants or associates in the practice	h. Telephone, fax, and e-mail address
d. Quotable qualifications and appointments and other titles approved by the council	i. Address and location map of the practice
e. Specialist title approved by the Council	

Announcements in mass media

- Announcements of commencement of practice or change of address, partnership etc. are permissible only in newspapers provided that all announcements are completed within two weeks of the commencement/change taking place and comply with BMDC code. The size of the announcement must not

exceed 12 square inches. Photographs are not allowed. Similar announcements via other media including printing, mailing, broadcasting and electronic means are not permitted.

- Letters of gratitude or announcements of appreciation from grateful patients or related persons identifying the doctor concerned should not be published in the media

Financial relationship with healthcare organizations

- A doctor may refer a patient to any hospital, nursing home, health centre or similar institution, for treatment by himself or other persons only if it is, and is seen to be, in the best interest of the patient.
- Doctors should therefore avoid accepting any financial or other inducement from such an institution for such referral.
- Doctors proposing to refer a patient to an institution in which they have a financial interest, whether by reason of a capital investment or a remunerative position, should always disclose the interest to the patient before making the referral.
- A doctor when prescribing should only choose the drug or appliance that is cost-effective and will best serve the medical interests of his patients. Doctors should therefore avoid accepting any inducement from pharmaceutical industries.

Improper financial transactions

- A doctor shall not offer to, or accept from, any person or organization (including diagnostic laboratories, hospitals, nursing homes, health centers, beauty centers or similar institutions) any financial or other inducement for referral of patients for consultation, investigation or treatment

Untrue or misleading certificates and similar documents

- Doctors are required to issue reports and certificates for a variety of purposes (e.g. insurance claim forms, payment receipts, medical reports, vaccination certificates, sick leave certificates) on the basis that the truth of the contents can be accepted without question.
- A sick leave certificate can only be issued after proper medical consultation of the patient by the doctor. The date of consultation and the date of issue must be truly stated in the certificate, including a certificate recommending retrospective sick leave.
- Any doctor who in his professional capacity gives any certificate or similar document containing statements which are untrue, misleading or otherwise improper renders himself liable to disciplinary proceedings.
- Signing of blank certificates is prohibited by the Council.

Multiple Choice Questions

Put √ (Tick) mark on the left-hand side of the single best answer

1. A 35-year-old man was admitted to the medicine unit for evaluation of jaundice, which developed 10 days after starting anti-TB drugs for smear-positive pulmonary tuberculosis. The consultant stopped anti-TB therapy with suspicion of adverse drug reaction. The principle of ethics that best explains the scenario is-
   a) beneficence
   b) justice
   c) nonmaleficence
   d) respect for autonomy
   e) solidarity

Correct answer: c

2. A 55-year-old male presented with cough and right-sided chest pain for 1 month. His chest x-ray postero-anterior view revealed a mass lesion in the right middle zone close to the hilum. For further evaluation, his consultant suggested a bronchoscopic biopsy. After receiving information about the bronchoscopic procedure, its advantages, and possible complications, the patient denied it and wanted alternative diagnostic tests. The concerned consultant offered him a CT-guided core biopsy as an alternative test to confirm the diagnosis and the patient agreed to do the procedure. Which principle of ethics does the consultant obey here?
   a) autonomy
   b) beneficence
   c) confidentiality
   d) justice
   e) nonmaleficence

Correct answer: a

3. What ethical concept is central to the dilemma of allocating limited organ transplants and justifying who receives them?
   a) autonomy
   b) fidelity
   c) justice
   d) privilege
   e) veracity

Correct answer: c

What does the principle of beneficence require of healthcare professionals?

a) To act in the best interest of the patient
b) To prioritize their own interests over the patient's
c) To avoid causing harm to the patient
d) To distribute healthcare resources fairly

Answer: a) To act in the best interest of the patient

4. What do healthcare professionals require to comply with the principle of beneficence?

a) to act in the best interest of the patient
b) to avoid causing harm to the patient
c) to distribute healthcare resources fairly
d) to prioritize their own interests over the patient's
e) to provide healthcare services to those who need them

Correct answer: a

Put 'T' for true and 'F' for false on the left-hand side of each statement (stem)

1. The visiting card of a doctor should contain
   a) all degrees achieved

1. The visiting card of a doctor should contain
   a) all degrees achieved
   b) consultation hours
   c) name of the doctor with the prefix Dr.
   d) photograph of the doctor
   e) telephone, fax, and e-mail address

Answer: a) F, b) T, c) T, d) F, e) T

2. Relationships that are a component of medical ethics are
   a) doctor-doctor relationship
   b) doctor-patient relationship
   c) relationship of a doctor to the Bangladesh Medical & Dental Council
   d) relationship of a doctor to the Ministry of Health
   e) relationship of a doctor to the society

Answer: a) T, b) T, c) F, d) F, e) T

References

1. Beauchamp TL, Childress JF. Principles of Biomedical Ethics. Oxford UP, USA, 2009.
2. "WMA - the World Medical Association-WMA Declaration of Geneva."

   www.wma.net/policies-post/wma-declaration-of-geneva., 9 July 2018. Accessed 3 Apr. 2024.
3. "WMA- the World Medical Association-WMA International Code of Medical Ethics." www.wma.net/policies-post/wma-international-code-of-medical-ethics., 14 Apr. 2023.

   Accessed 3 Apr. 2024.
4. Varkey B. Principles of Clinical Ethics and Their Application to Practice. Med Princ Pract 2021; 30(1):17-18. https://doi.org/10.1159/000509119.
5. "Bangladesh Medical and Dental Council Code of Professional Conduct, Etiquette and Ethics." https://www.bmdc.org.bd/docs/EthicsBookMakeupfinal.pdf. Accessed 3 Apr. 2024

Outline	
Topic	**Communication Skill**
Learning objectives	At the end of the session, students will be able to • explain the concept of communication skill • elaborate the types and components of communication skill • state the main tools of communication • mention the importance of communication skill • describe the ways of effective communication with patients, students and others
List of contents	• The concept of communication skill • Types and components of communication • Main tools of communication • Importance of communication skill • Ways of effective communication • Video demonstration
Method	• Oral speech • PowerPoint • Video demonstration • Role play
Time	• One and half hour

Link of video demonstration: https://youtu.be/CqrmTNFN_8k

Before we start: The concept of 'The blind leading the blind'

It cannot be assumed that the facilitators necessarily have a better grasp of subject matter than their learners. The facilitators might never have received any formal training on communication skills and might not demonstrate a high standard of communication in their own practice.

Helping facilitators to understand the basics of communication skill practically can greatly illuminate experiential learning.

Purpose/ relevance of the topic: 5 minutes

By a story telling session, the teacher explains the purpose or relevance of the topic.
Example: A news report/ video clip


বাংলাদেশ প্রতিদিন

শুক্রবার, ৪ নভেম্বর, ২০২২ ০০:০০ টা

রোগী কেন বিদেশ যায়

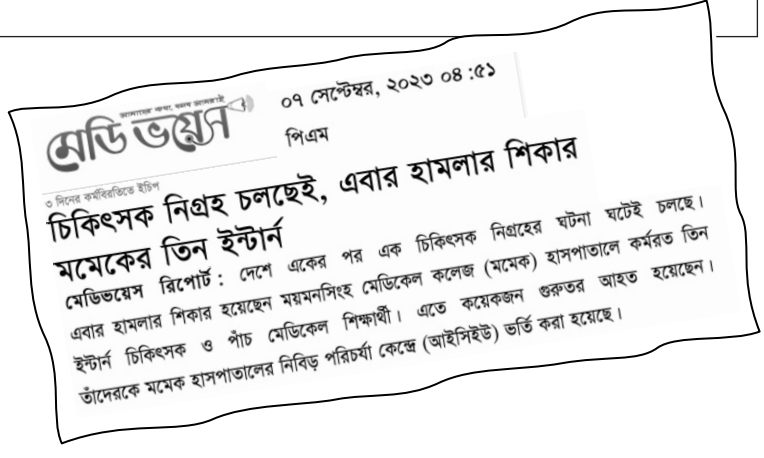
বছরে ব্যয় হাজার কোটি টাকা

ধনীরা যাচ্ছে সিঙ্গাপুর থাইল্যান্ডে, মধ্যবিত্তরা ভারতে

সরকারি হাসপাতালে অব্যবস্থাপনা, সংকট প্রযুক্তিগত সীমাবদ্ধতা

ক্যান্সার কিডনি লিভার হৃদরোগী যাচ্ছে বেশি

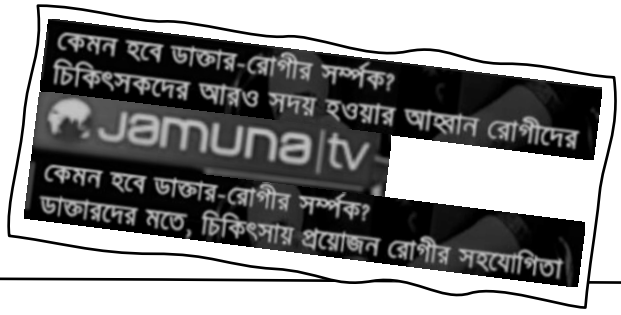
বেসরকারিতে আস্থার সংকট, প্রতারণা


মেডিভয়েস

০৭ সেপ্টেম্বর, ২০২৩ ০৪ :৫১ পিএম

চিকিৎসক নিগ্রহ চলছেই, এবার হামলার শিকার মমেকের তিন ইন্টার্ন

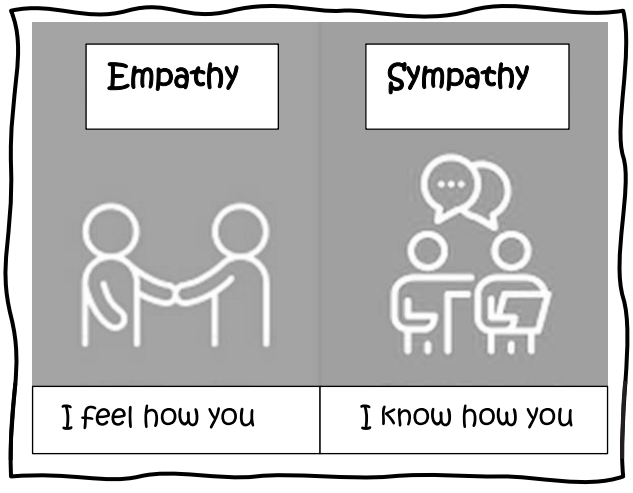
মেডিভয়েস রিপোর্ট : দেশে একের পর এক চিকিৎসক নিগ্রহের ঘটনা ঘটেই চলছে। এবার হামলার শিকার হয়েছেন ময়মনসিংহ মেডিকেল কলেজ (মমেক) হাসপাতালে কর্মরত তিন ইন্টার্ন চিকিৎসক ও পাঁচ মেডিকেল শিক্ষার্থী। এতে কয়েকজন গুরুতর আহত হয়েছেন। তাঁদেরকে মমেক হাসপাতালের নিবিড় পরিচর্যা কেন্দ্রে (আইসিইউ) ভর্তি করা হয়েছে।



- *54% of patients' complaints and 45% of their concerns are not elicited (Stewart et al. 1979).*
- *In 50% of visits, the patient and the doctor do not agree on the nature of the presenting problem (Starfield et al 1981).*
- *Doctors usually interrupt the patients so soon after they begin the opening statement that patient fails to disclose significant concerns (Beckman and Frankel 1984; marvel et al,1999).*
- *On average, in 50% cases, patients do not take their medicine at all or take it incorrectly (Meichen-baum and Turk 1987; Butler et al. 1996).*

Assessment of pre-requisite knowledge (Prior learning): 5 minutes

- *What is communication?*
- *What is media?*
- *What is sympathy?*
- *What is empathy?*



Contents: 40 minutes

1: The concept of communication skill:

1.1. Communication:

- The word communication is derived from the Latin word "*communicare*", which means to share.
- Communication is a process by which an information is passed from a sender to a recipient using a medium.
- In clinical practice, communication bridges the gap between evidence-based medicine and working with individual patients.

1.2 Methods of communication:

When we think of communication, to many of us it means verbal communication only and we may not consider that it is just one aspect of communication. Methods of communication may vary depending upon the people who are communicating, the subject matter and the context of that communication.
Example:

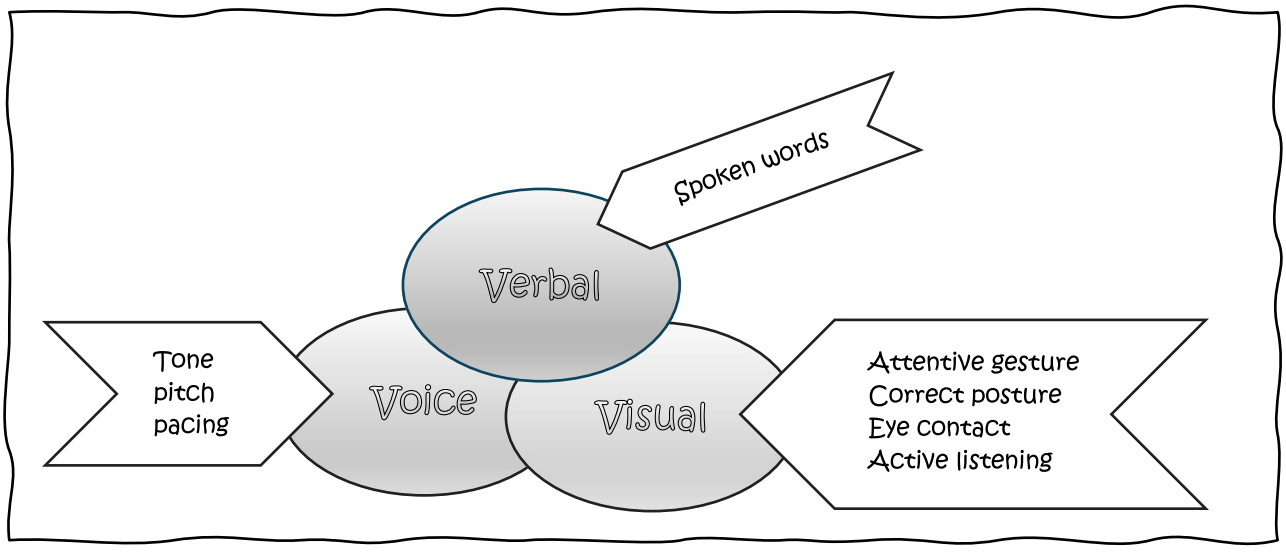
- An email between two professional people would sound different compared to an email between two close friends, as the formality and tone would differ.
- A training course for beginners would require more visual aids than a course for more mature learner.

Different methods of communication:

- Verbal communication (*the spoken word*)
- Non-verbal communication (body posture, eye contact, facial expressions, touch, movements, tone of voice etc.)
- Written communication (letter, email, report, message in social media etc.)
- Listening (active listening can truly engage someone in communication)
- Visual communication (drawing, graphic design, illustration, color, sign etc.)ges the gap between evidence-based medicine and working with individual patients.

1.3 The three V's rule of communication:

e 3 V's of communication comprise Verbal, Visual and Vocal components.



1.4 The Albert Mehrabian's theory of face-to-face communication/conversation

The 7-38-55 rule is an evidence-based concept concerning the communication of emotion. This rule states that 7 percent of meaning is communicated through spoken word, 38 percent through tone of voice, and 55 percent through body language.

So, it is not only about what is said and what message is received, but also about how it is said, how the body language was and what was the facial expression!

1.5 The 7 C's of communication in healthcare:

- Clear (*convey the message in an easy-to-understand manner*)
- Concise (*to be to the point without using a lot of words*)
- Concrete (*clear and usually supported with facts*)
- Correct (*make sure all your facts and figures are accurate*)
- Coherent (*logical and consistent*)
- Complete (*complete message gives the user all the information and makes know what needs to be done*).
- Courteous (*being courteous is the most important attribute of communication*.)

1.6 Communication skill

- Communication skill is the ability to convey or share ideas and feelings accurately and effectively.
- Communication skill is a core clinical skill, an essential component of clinical competence
- Communication skill turns theory into practice
- Communication skill is not just a personality trait, it needs to be taught and learnt
- Experience alone can be a poor teacher for communication skill
- Communication programmers need to produce effective and long-lasting changes in learner's communication skills.

2: Types and components of communication:

2.1 Components of communication:

- Sender (*the person who initiates the communication process*)
- Encoding (*conversion of sender's idea and thought into a message*)
- Message (*the main information provided, usually consisting of 3 V's: verbal, voice, visual*)
- Channel (*the path used to communicate. Example: press, TV, interpersonal or digital communication etc etc.*)
- Receiver (*the individual who receives the message and deciphers the meaning*)
- Context (*the environment in which communication takes place. Example: A quiet library, a hospital, a social get together, an interview etc.*)
- Environment (*the physical component in which a communication takes place. Example: room temperature, timing, noise, furniture, physical distance, illumination, cleanliness etc.)*
- Decoding (*translation of a message into a meaning or idea*)
- Feedback (*the receiver's response to message. Example: reply to an email.*)

2.2 The graphical illustration of communication cycle

The 'Communication cycle' is a transmission model that provides a schematic representation of the relation between all the components of communication, staring with the sender and ending with the receiver. It was first explained by Claude Shannon and Warren Weave in 1949.

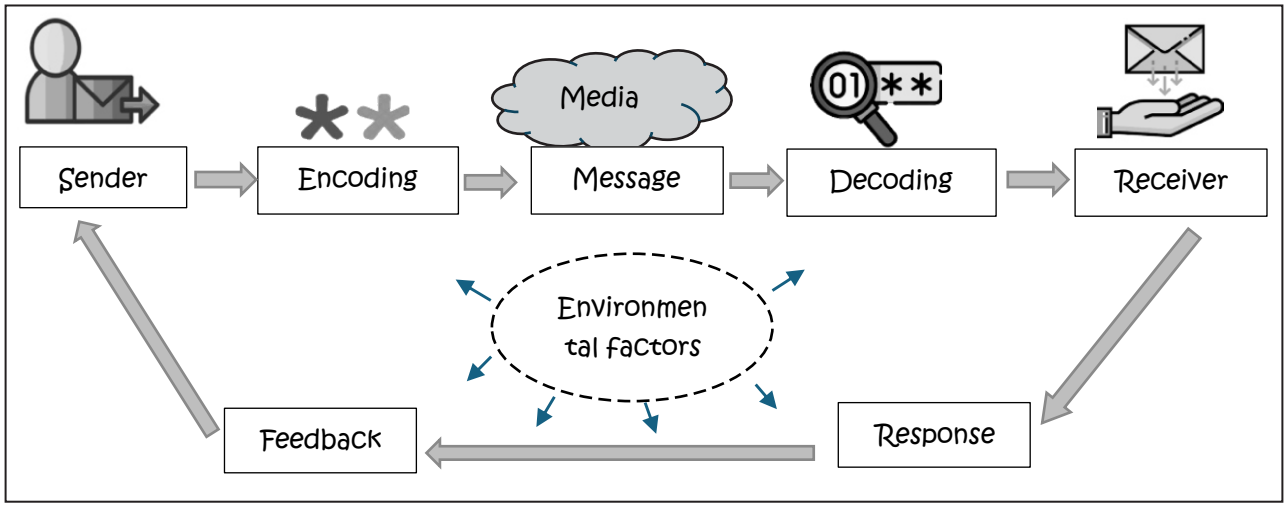


Fig: Communication cycle

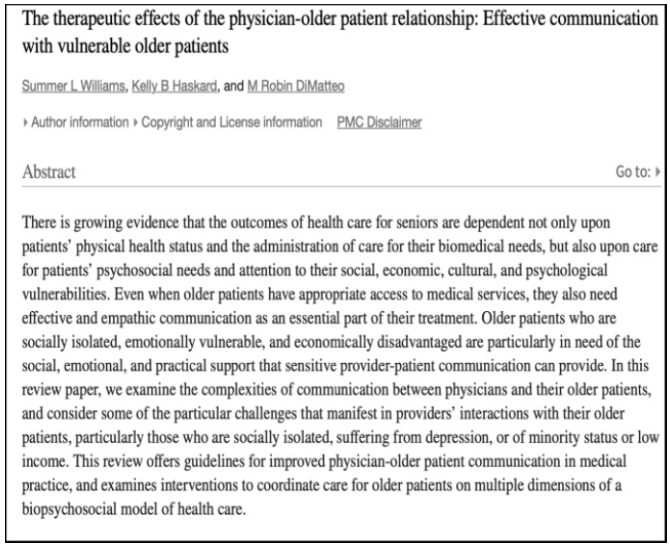
4: Importance of communication skill:

4.1 Communication skill in healthcare:

Every person deserves to understand the ongoing medical care they receive, and the future plan. An effective communication is more than just 'being nice'. Rather, it significantly improves:

- Health outcome of patient
- Satisfaction of both patient and physician
- The therapeutic relationship
- Bridging the gap between evidence-based medicine and working with individual patients

4.2 Evidence-based examples



The therapeutic effects of the physician-older patient relationship: Effective communication with vulnerable older patients

Summer L Williams, Kelly B Haskard, and M Robin DiMatteo

Author information Copyright and License information PMC Disclaimer

Abstract Go to:

There is growing evidence that the outcomes of health care for seniors are dependent not only upon patients' physical health status and the administration of care for their biomedical needs, but also upon care for patients' psychosocial needs and attention to their social, economic, cultural, and psychological vulnerabilities. Even when older patients have appropriate access to medical services, they also need effective and empathic communication as an essential part of their treatment. Older patients who are socially isolated, emotionally vulnerable, and economically disadvantaged are particularly in need of the social, emotional, and practical support that sensitive provider-patient communication can provide. In this review paper, we examine the complexities of communication between physicians and their older patients, and consider some of the particular challenges that manifest in providers' interactions with their older patients, particularly those who are socially isolated, suffering from depression, or of minority status or low income. This review offers guidelines for improved physician-older patient communication in medical practice, and examines interventions to coordinate care for older patients on multiple dimensions of a biopsychosocial model of health care.

Social Science & Medicine. Part A: Medical Psychology & Medical Sociology

Volume 12, 1978, Pages 123-128

Research note

The effects of doctor-patient communication on satisfaction and outcome of care ☆

F.Ross Woolley, Robert L. Kane, Charles C. Hughes, Diana D. Wright

Show more

Add to Mendeley Share Cite

https://doi.org/10.1016/0271-7123(78)90039-1 Get rights and content

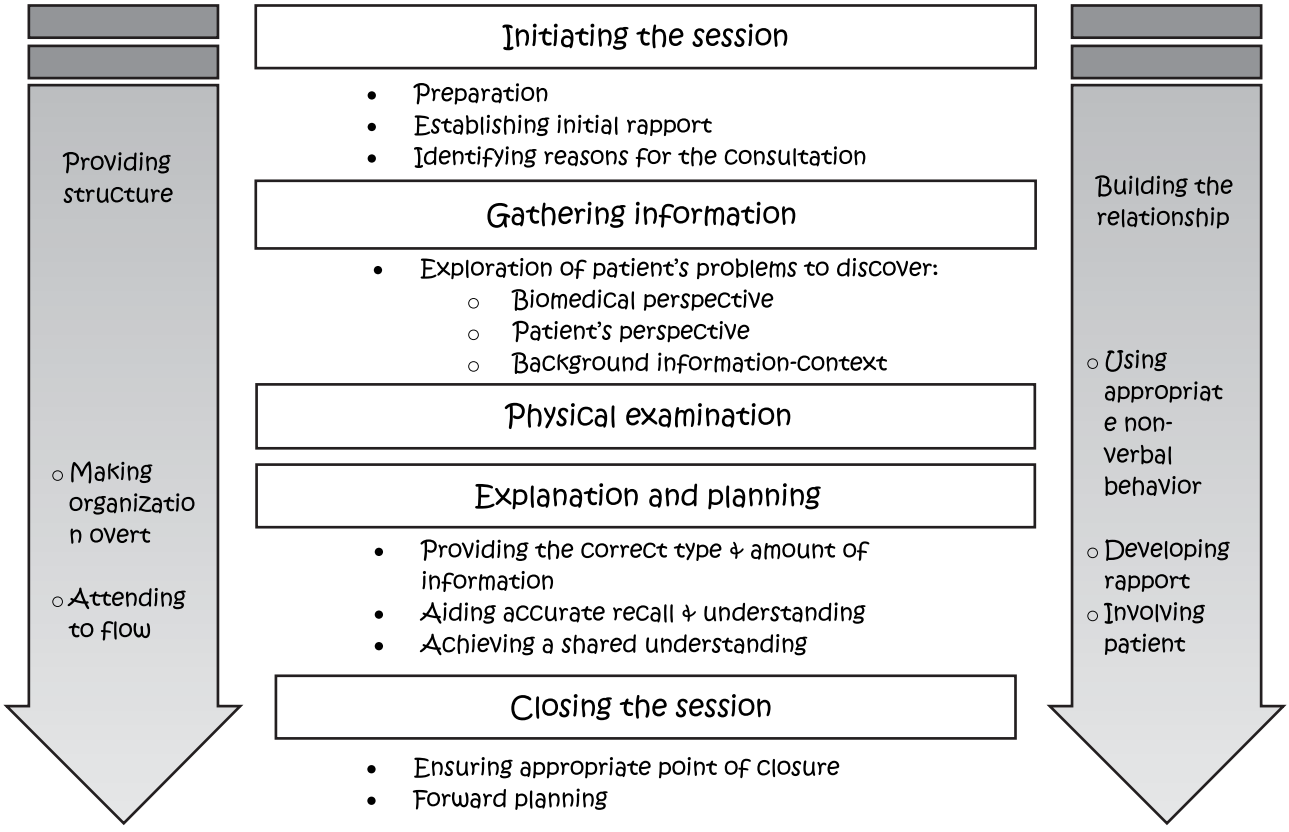
Abstract

From data on a series of 1761 episodes of acute primary care, the chain of relationships between patient expectation, doctor-patient communication, compliance, outcomes of care and satisfaction was examined. Overall few meaningful correlations were found. There was a strong positive relationship between patient satisfaction and functional outcome. Nonetheless, 65% of those patients who failed to regain their usual functional status professed satisfaction with the outcome of their care. Using discriminate analysis, we could predict satisfaction with outcome best by the actual outcome and satisfaction

5: Ways of effective communication with patients, students and others

5.1 Basic framework of medical interview: The enhanced Calgary-Cambridge Model:

(A method for structured medical interview)



5.2 Some practical tips of effective communication

- Seating arrangement:
  - Quiet, private space
  - Non-confrontational sitting: preferably 90 degree angle
  - Avoid any obstacle
  - Maintain same eye-level and eye contact
- Proper introduction
- Unhurried approach
- Start with open question
- Checking for prior understanding
- Use of silence, *when appropriate*
- Active listening
- Empathy
- Non-verbal communication (smiling/ nodding appropriately)
- Addressing any special concern
- Recapping on what has been said
- Reflection of key points back to the listener

5.3 A special scenario: breaking bad news

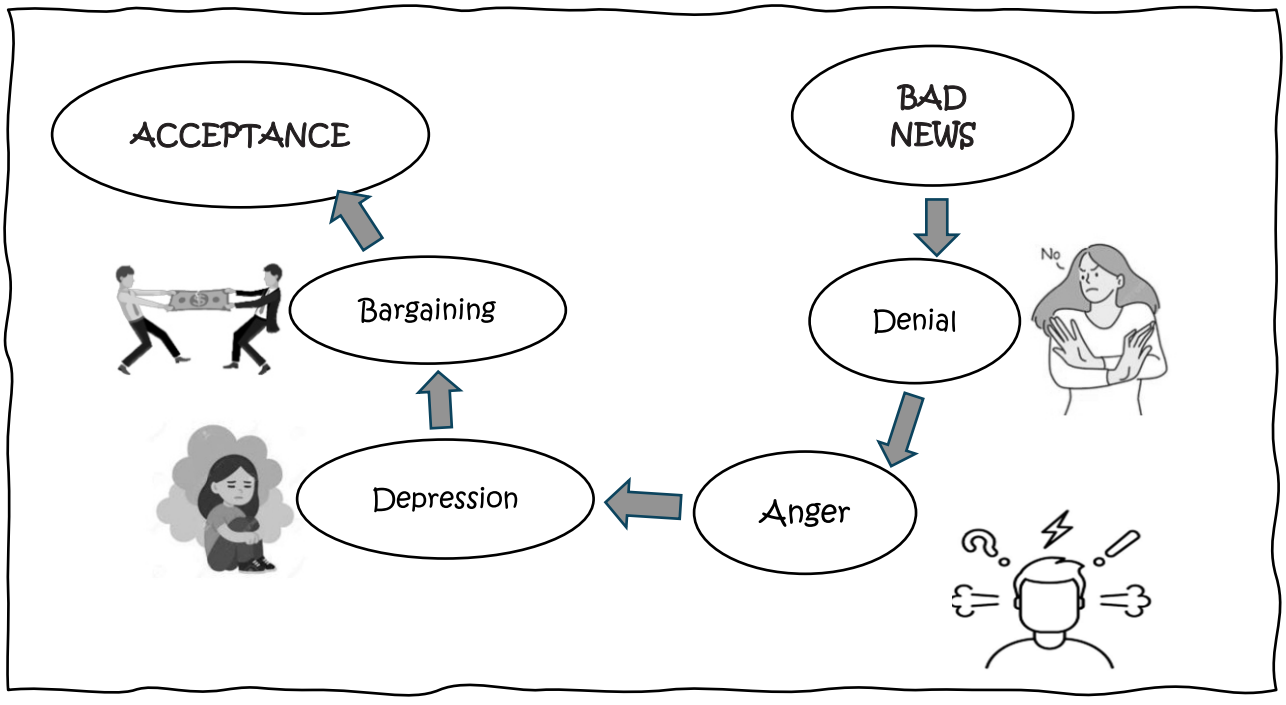
5.3.1 Bad news:

Any news that drastically and negatively alters the listener's view

5.3.2 Breaking bad news:

- Disclosure of a bad news to someone.
- The impact of braking bad news depends on the size of gap between expectation and reality
- Examples of breaking bad news scenario:
  - Life threatening illness (cancer, HIV etc)
  - Intra-uterine fetal loss
  - Sudden unexpected death
  - Brain death

5.3.3 Common human reactions to bad news: The Kubler Ross Grief Cycle:



Setting

Privacy
People
Physician (Calm, attentive)

Perception

Assess prior understanding

Invitation

Invite questions from the patient

Knowledge

Transfer the information with prior warning

Empathy

Acknowledge & address emotions

Strategy & Summary

Patient knows & agrees on next steps

5.3.5 The video demonstration: Breaking bad news: 10 minutes:

Video link:

https://youtu.be/CqrmTNFN_8k

Scenario

You are about to meet Ms. Sheema, daughter of Mr. Uzzal. She wants to know the results of a recent CT guided FNAC test done for Mr. Uzzal. You know that Mr. Uzzal was a suspected case of lung cancer. After seeing a highly suspicious shadow in lung, CT scan was advised and now the FNAC report confirmed the diagnosis of lung cancer.

Your task is to break the news to Ms. Sheema (Patient's daughter)

Tips!!

- Introduction
- Assess prior understanding
- Warn
- Break the news
- PAUSE (let the news sink!!) & wait for a reaction
- Acknowledge the reaction & show empathy
- Assess the subject for acceptability of more information
- Engage the subject for the options of available future treatment
- Give hope
- Address any concern
- Summarize
- Close the window

1.4 Some difficult situations:

1.4.1 Patient has language/speech difficulties:

- Use an interpreter; but address the patient, not the interpreter
- Communicate in writing if patient can read
- Sign language
- Involve someone who is use to communicate with the patient

1.4.2 Personal question/ examining private parts:

- Ensure adequate privacy
- Ensure confidentiality

1.4.3 Patient is emotional!:

- Encourage to talk
- Explore the reason for emotion
- Set professional boundaries if patient tries to become overly familiar!

1.5 Above all, there should NOT BE any discrimination among patients

1.6 Sense of teamwork at workplace

- *"United We Stand, Divided We Fall"*
- A physician has to work in team with other colleagues and health care professionals

- Working in team does not change someone's personal accountability
- Try to act as a role model to inspire colleagues
- Always respect contribution of colleagues
- Communicate effectively, specially during handing over duties

- Working in team does not change someone's personal accountability
- Try to act as a role model to inspire colleagues
- Always respect contribution of colleagues
- Communicate effectively, specially during handing over duties

Supervised group activity (Role play): 20 minutes

List of scenarios

Serial no	Scenario
Scenario 1	Taking consent for a procedure
Scenario 2	Information giving
Scenario 3	Practicing Autonomy
Scenario 4	Telling the truth
Scenario 5	Breaking bad news
Scenario 6	Maintaining confidentiality of patient
Scenario 7	Communication with colleague/ co-worker/ senior
Scenario 8	Reaction to an aggressive/ abusive/ depressed patient or attendant
Scenario 9	Handling with a fault of self/ colleague/ staff
Scenario 10	Doing justice to patient

Feedback (Random questioning): 5 minutes

Summary (By students): 5 minutes

Assessment: Direct observation of role play by a checklist

Checklist for assessment

Serial No	Activity	Not done/wrongly done 0	Partially done 1	Completely done 2
1	Introduction			
2	Assessment of prior understanding			
3	Conveys right information			
4	Proceeds step-wise			
5	Tone, pitch, pacing of voice			
6	Appropriate non-verbal cues			
7	Addresses any concern			
8	Summarizes			
9	Closes window			

Bibliography

1. Silverman, J., Kurtz, S., & Draper, J. (2013). Skills for Communicating with Patients (3rd ed.). CRC Press. https://doi.org/10.1201/9781910227268
2. Faiz MA, Talukder MHK, Uddin AKMR, Khandaker, MAK, Siddiqui FM, Alam MR, Rahman MR, Alam KK. Effect of training of communication skill on doctors. J Dhaka Med. Coll. 2007;16(2):55-59.
3. Khanom M, Akter S, Zahed ASM, Ata M, Khair R, Sharif PI, Shoma AK, Hossain MA. Outcome of Training on "Doctor-Patient Communication Skill" for the Pre-intern Physicians. Journal of Medicine. 2019; 21(1), 3-7. https://doi.org/10.3329/jom.v21i1.44093
4. Danielle G, Rabinowitz. On the arts and humanities in medical education. Philosophy, Ethics and Humanities in Medicine. 2021; 16 :4.

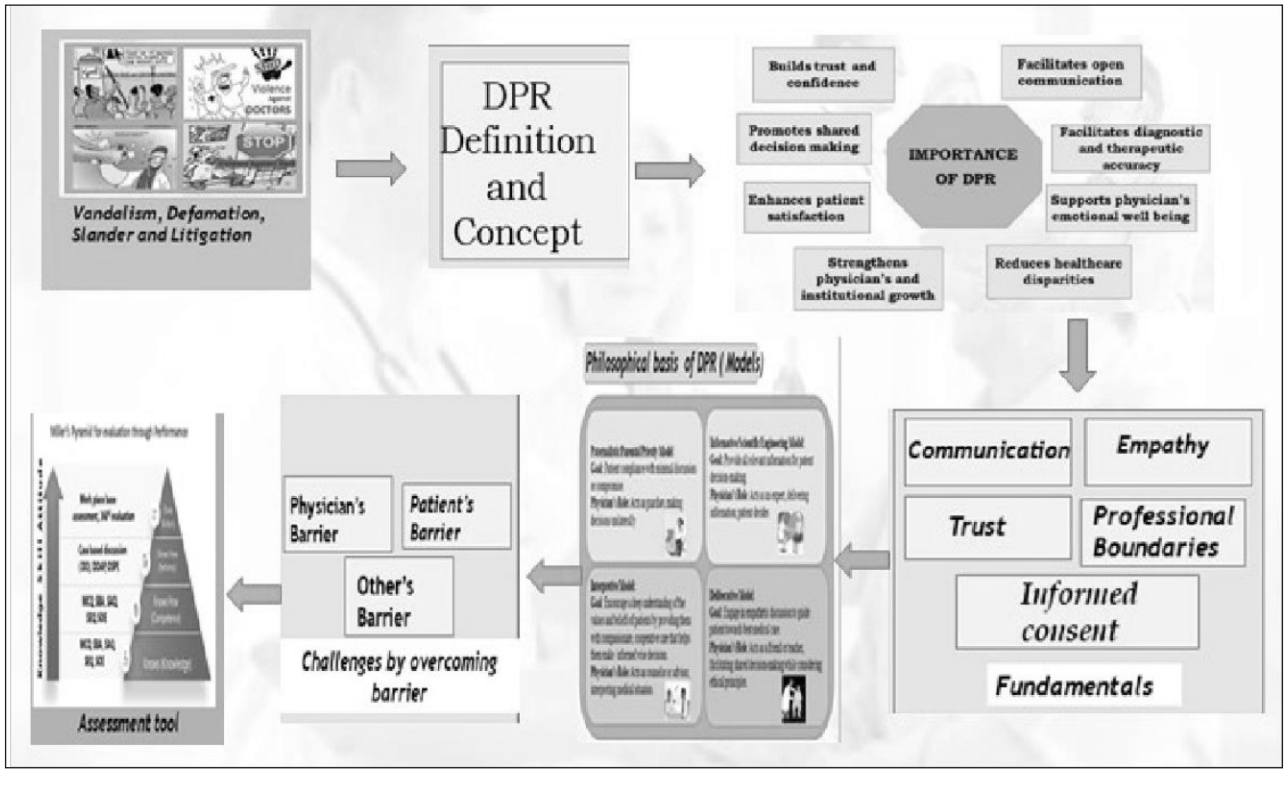
   https://doi.org/10.1186/s13010-021-00102-0
5. Loukia Petrou, Emma Mittelman, Oluwapelumi Osibona, Mona Panahi, Joanna M etal. The role of humanities in the medical curriculam: medical students' perspectives. BMC Medical Education. 2021; 21:179. https://doi.org/10.1186/s12909-021-02555-5

Topic 7: Patient Relationship (DPR)

Anupam Barua; Rozina Hoque

Outline	
Topic	**Doctor- patient relationship (DPR)**
Learning objectives	At the end of the session, students will be able to • define doctor-patient relationship (DPR) • state importance of DPR • list patient related, doctor -related and health system related factors of DPR • explain the means of strengthening the DPR • mention some current examples of the DPR
List of contents	• Definition doctor-patient relationship (DPR) • Importance of DPR • Patient related, doctor -related and health system related factors of DPR • Means of strengthening the DPR • Some current examples of the DPR
Method	• Interactive lecture • Seminar
Time	• One and half hour

Graphical presentation of DPR module:



"An action, to have moral worth, must be done from duty"

IMMANUEL KANT.

Concept & Definition

"The relationship between doctor and patient lies at the heart of medical ethics. It is a complex relationship in which the doctor seeks to understand the patient's condition and to assist him or her in overcoming the illness. It is based on trust and respect for the patient, and on the ability of the doctor to use his or her skills and knowledge for the benefit of the patient. This relationship is governed by a set of ethical principles which are designed to protect the interests of the patient while allowing the doctor to fulfill his or her professional obligations." A well liked definition quoted from Tony Hope's "Medical Ethics: A Very Short Introduction".

This definition highlights the key elements of the DPR, including trust, respect, understanding and the ethical principles that guide interactions between doctors and patients.

DPR is typically created when a doctor provides a patient with comfortable examination, diagnosis and treatment. Because of the relationship, the doctor has an obligation to either successfully end the relationship or go forward with the patient's illness. Specifically, in order to provide patients with top-notch care, primary care providers must create an acceptable DPR.

Beginning from the first clinical encounter, rapport building, history taking, clinical examination, investigation layout, counseling, initiating treatment, breaking the bad news if any; the patient solely relies on the physician for each and every aspect. The physician is obliged to provide the best of care and service to the patient according to the best of his knowledge, abilities and hospital settings without any bias. The physician is ethically responsible to provide the service to the patient in the light of patient's own desire, benefits, little or no harm at all, trust and Justice. The patient also has the independence to proceed with the physician's suggested protocol or to seek additional advice, even willingly discontinue the total protocol with realization of the pros and cons. The relationship here is two ways, each person hoping for the best outcome respecting mutual values, perceptions and interests.

The doctor's capacity to fully analyze a patient is thought to be hampered by the absence of this relationship, which is built on mutual respect, trust, and knowledge. As a result, the patient is less likely to trust the diagnosis and course of treatment (Mars M, 2020).

Hence DPR can be defined as, a consensual relationship which strictly adheres to the principles of medical ethics, where the patient knowingly seeks the physician's assistance and the physician knowingly accepts the person as a patient, both aiming at the best possible outcome.

Importance

An ideal DPR can rightly be called the pedestal of the structure of medical ethics. Good communication beginning with rapport building, being the stepping stone leads towards trust, consent, empathy and other inevitable attributes. When an ailing person i.e. patient himself, visits a physician or is brought for seeking healthcare service by his kin; the very first meeting with the physician is the building block of the DPR.

With time as communication commences, exchange of valuable data through history taking; followed by formulating investigation plan with the written informed consent of patient and or family, management plan, counseling; each and every step needs effective and competent DPR. The first impression, i.e. rapport building can be the founding pillar of DPR. A doctor, who does not give enough time, has hurried approach and is cold, will always fall short of delivering comprehensive management; despite his years of unparalleled medical knowledge and expertise. Likewise, a patient who doesn't honor, respect or trust his physician will not confide well in his treating physician. In both cases, there will be a poor DPR.

Apart from patient care and benefit, DPR also serves as a tool for physician's personal and institutional growth that is self and organizational development.

DPR ensures a homely feeling to patients; and inculcates a sense of warmth of the physicians towards a patient, fuelling his empathy and beneficence - the fundamentals of medical ethics. The physician tends to care for his patient not only during the treatment period, but also after. For e.g: following up a patient suffering from a chronic communicable disease such as Tuberculosis (TB). Besides DPR serves as a tool for important preventive strategy by increasing awareness and reducing the spread of communicable illnesses, including often those which are overlooked health concerns, like STDs. For instance, with modernization and free mixing the rates of HIV transmission and patients living with HIV are both on a drastic rise.

A sound DPR also serves as an upliftment in the management of non communicable diseases, geriatric and psychiatric diseases. For e.g; a patient of chronic depression who has attempted suicide previously may respond better to counseling rather than to anti psychotic drugs alone. So it appears that effective counseling cannot be delivered without building an effective relationship.

From the physician's perspective, DPR may help reduce the stress that work environment and social media impose. There will be a decline in the incidence of litigation, vandalism, slandering and defamation that is heard, spoken of and sometimes even broadcast on social platforms. DPR will empower not just the patient, but also the physician and his ancillary staff and culminate in a reduced rate of medical mishaps and alleged negligence.

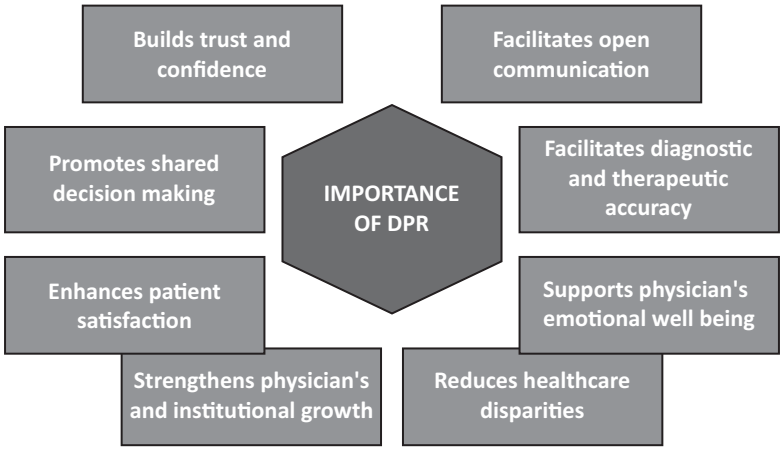


Fig. 1: Importance of DPR

So it's imperative that DPR be introduced and its understanding and teaching be implemented effectively from the initial phases of medical education and continued even after graduation as it could mark the unfolding of a new horizon, not only in this field but also uplift the scenario of our existing healthcare system.
In order to provide the best care and service to our patients, we need to be the very best through our approach, attitude, language, conduct and demeanor.

***"The Doctor Patient Relationship (DPR) is critical to the placebo effect."*- IRVING KIRSCH**
Therefore, DPR has to become an inherent trait among all physicians and we should all act cumulatively towards improving it.

Fundamentals of DPR

There are some good attributes under which DPR is grounded. By good DPR patient will be pleased, doctor will be satisfied and outcome will be best. There will be growth and development of physician and his institute and overall positive environment will be created. The formation of a relationship between a doctor and patient has been discussed in a number of medical reviews. We go into further depth about a few key components that are necessary to keep DPR in good shape as mentioned below.

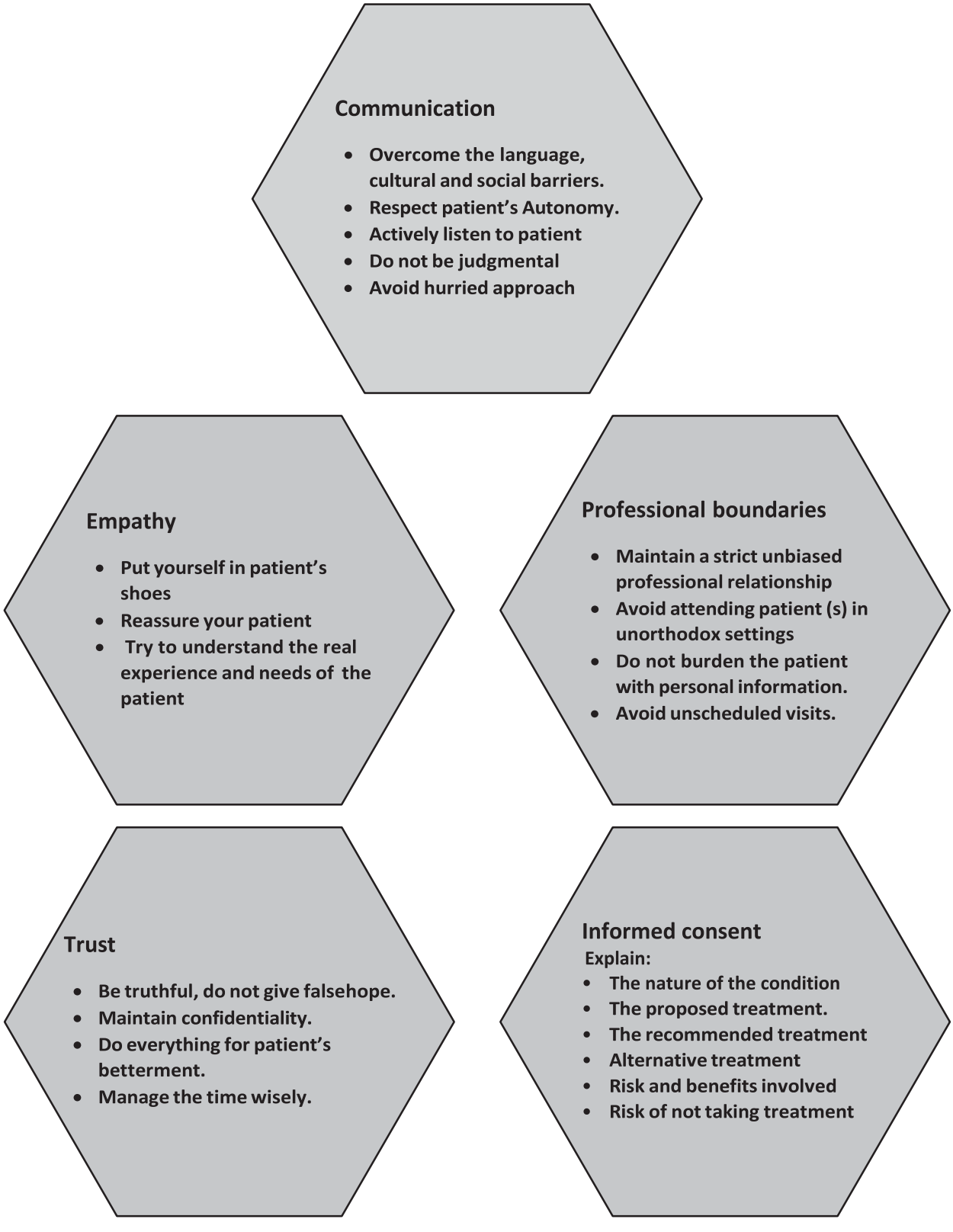


Figure 2: Fundamentals of DP

Philosophical basis of DPR

"***The doctor patient relationship that is constructed on the principles of medical ethics is an effective one***". There are various philosophies in which patients and doctors engage and relate to one another. The philosophical foundation of the DPR can be broadly divided into physician centered and patient centered model which represent various perspectives on the interactions and relationships between patients and doctors. Appropriate model can be chosen based on patient's individuality, specific situation and also their literacy and learning abilities

Principles of Medical Ethics

1. **Autonomy**
2. **Beneficence**
3. **Non-maleficence**
4. **Justice**

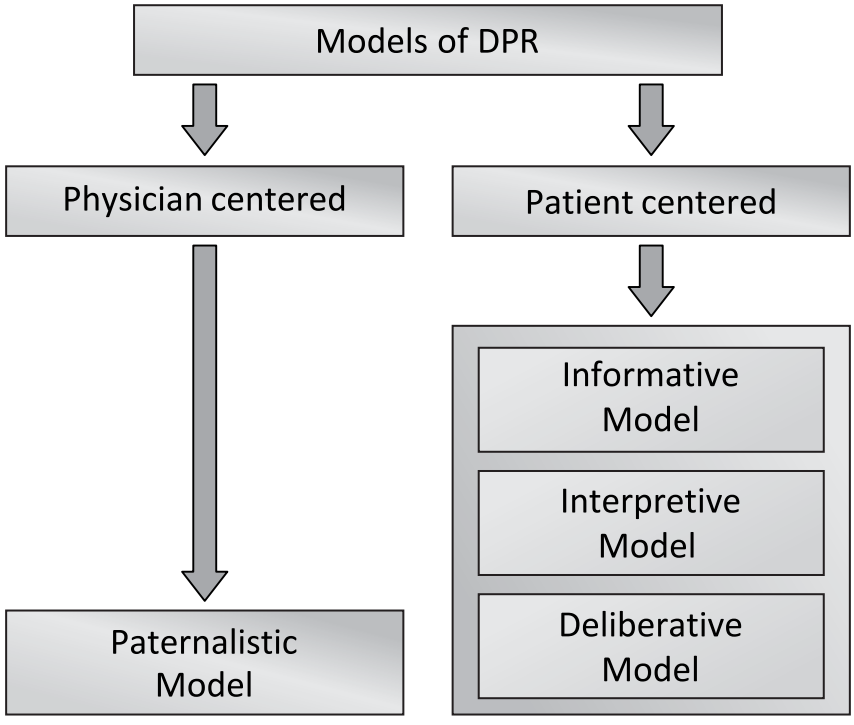


Figure 3: Types of models of DPR

The models are:

1. *Paternalistic Model:*

- **Goal**: Patients should adhere to the most effective treatment plan that has been recommended, with little to no discussion or compromise
- **Physician's role**: ***The physician acts as a guardian***. The physician is in command and has decision-making authority. Physician has a directed communication style with their patients and makes decisions on their behalf using their expertise and professional judgment.
- **Physician's satisfaction**: Despite of patient disempowerment, physician may feel satisfied with complete control over decision**.**
- **Patient's role:** Patients participate very little or not at all in the decision-making process. They have a passive role in which they are supposed to heed the doctor's advice without question.
- **Patient's values**: Finite and are demonstrated by their agreement with the doctor's recommendations.

- **Medical ethics:** Autonomy ignored, Beneficence can be preserved upon doctor's decision. Non-maleficence and justice might be compromised as decisions are taken unilaterally.

N.B: *This model is appropriate in emergencies where a patient is unconscious and quick treatment is crucial. Here detailed informed consent and elaborative discussions being time consuming are less practiced*.

2. *Informative Model:*

- **Goal:** is to provide all relevant information to medical care and make the patient able to take their own decision.
- **Physician's role:** ***The Physician acts as an expert*****.** In this model, the physician's duty is to tell the patient about their disease, available treatments and possible consequences.
- **Physician's satisfaction**: Depends on physician, he or she will either be satisfied because all information about medical care is provided and patient's empowerment is established, or dissatisfied because patients take charge of the decision-making process and the doctor has little involvement in it.
- **Patient's role:** The patient has the right to make decisions based on this understanding after receiving all facts.
- **Patient's values**: defined, fixed and decisions are made by themselves.
- **Medical ethics:** Autonomy and beneficence are preserved. Non-maleficence and justice are frequently overlooked due to lack of skill of physician, ineffective communication, patient's level of education, misconception and lack of shared decision making.

N.B*: Physician(s) may be dissatisfied either due lack of empathy or due to inability to enforce the best possible medical care. Patient(s) may be dissatisfied due to dilemma in making the right decision.*

3. Interpretive Model:

- **Goal:** is to comprehend the beliefs and values of the patient and explain to them the risk and benefit ratio of every component of medical therapy.
- **Physician's role:** ***Here, the physician takes on the role of advisor or counselor*** by elucidating the patient's current medical condition and available treatment alternatives.
- **Physician's satisfaction:** Understanding patient's values and building trust make them more satisfied than informative model but patient's values may not be in line with physician's choice.
- **Patient's role:** In light of the conception delivered by the physician, the patient is free to make his or her own decisions.
- **Patient's values**: Despite the free will to take decisions, sometimes patients may be ambiguous in decision making, demanding more clarification.
- **Medical ethics:** Autonomy and beneficence are rightly served, although the delivery of justice and non-maleficence may vary depending on the physician's ability to properly elaborate the situation and the patient's comprehension.

N.B: *In this model, effective DPR may not always be established either due to lack of time or hurried approach and or interpretative abilities of the physicians*.

4. Deliberative Model:

- **Goal**: is to elucidate all aspects of medical care with empathic engagement and convince them to take the best medical care.

- **Physician's role:** ***Here the physician acts as a friend***. The physician explains the various treatment options with mutual participation with his patients, persuades the patient of the more beneficial medical options. Here physician gives recommendations as though he were in the patient's shoes.
- **Physician's satisfaction:** Moral self development relevant to medical care, shared decision making fosters satisfaction and improved team work
- **Patient's role:** Patients are allowed to participate freely in the decision-making process, expressing their preferences and values.
- **Patient's values:** gradually develop and can change through moral discussion.
- **Medical ethics:** Throughout the decision-making process, patients and doctors are dedicated to respecting ethical concepts including autonomy, beneficence, non- maleficence and justice.

N.B: *A physician's ideas of the optimum health-related value may not align with those of other physicians or patients in our varied culture where people sometimes have conflicting and sometimes distinct values. When moral discussions between doctors and patients are based on the doctor's personal values, this approach becomes subtly paternalistic.*

Paternalistic/Parental/Priestly Model

Goal: Patient compliance with minimal discussion or compromise.

Physician's role: Acts as a guardian, making decisions unilaterally.

Informative/Scientific/Engineering Model:

Goal: Provide all relevant informationfor patient decision-making.

Physician's role: Acts as an expert, delivering information; patient decides.

Models of DPR

Interpretive Model:

Goal: Encourage a deep understanding of the values and beliefs of patients by providing them with compassionate, cooperative care that helps them make informed wise decisions.

Physician's role: Acts as a counselor or an advisor, interpreting medical situation; patient himself decides.

Deliberative Model:

Goal: Engage in empathetic discussion to guide patient towards best medical care.

Physician's role: Acts as a friend, facilitating shared decision-making while considering ethical principles.

Figure 4: Models of DPR

Fictitious Case Scenario

Mr.X, a 52 years old, obese businessman came to hospital cardiology outpatient department with the complaints of chest pain especially on walking and minimal exertion which relieved with rest. On examination, his BP was 160/90 mm Hg and pulse was 80 beats/min, BMI - 32 kg/m2 with xanthalesma around his eyes. A physician of outpatient department attended Mr. X and diagnosed him as a case of Ischemic heart disease (IHD); based on history and clinical examination and advised routine investigation such as ECG, echocardiography, lipid profile, serum creatinine, OGTT, X ray chest etc. He prescribed an antiplatelet, an antianginal and an antihypertensive and also advised the patient to undergo early Coronary Artery Angiogram (CAG), suggesting that it is by far the best diagnostic as well as therapeutic modality.

Interpretation

Paternalistic Model

In paternalistic model, physician imposes his opinion for the implementation of early coronary artery angiogram for block detection and removal without soliciting the patient's input.

Informative model

In Informative model, physician elaborately explains the risk and consequences of IHD to the patient. Then he prescribes a few mandatory investigations advocating the importance of each including invasive procedure i.e; early CAG. He explains the necessity and importance of early CAG as a tool for diagnosis as well as treatment and asks the patient whether he is willing to undergo early CAG by obtaining informed consent.

In paternalistic model, physician imposes his opinion for the implementation of early coronary artery angiogram for block detection and removal without soliciting the patient's input.

Interpretive Model

Besides providing detailed information regarding the disease course and outcomes, the physician elaborates the importance, risks and benefits of various investigations including early CAG and the hazards of not doing the same. Physician asks the patient regarding his own understanding of the disease and its consequences, willingness to undergo CAG early in the setting, also solves any further queries honoring patient's beliefs, values and cultural background as well as alleviates any fear, disbelief, mistrust or worry from his mind.

Deliberative Model

In addition to interpretive model, physician states that a patient of IHD with major risk factors like hypertension, obesity and old age runs a very high chance of heart attack, heart failure, early and or sudden death. He emphasizes by saying that “if I were in your place and could afford the cost, I would go to the procedure at the earliest possible. I would not delay it too long. I am of the opinion that you are in a good position to undergo this procedure early rather than delaying. So, I believe we should go for the procedure as soon as possible”.

Barriers of DPR

Barriers in the DPR can include poor communication, lack of trust, time constraints, cultural differences and differing expectations. These barriers can hinder effective diagnosis, treatment adherence and overall patient satisfaction and outcomes. Some of the barriers commonly encountered from different aspects have been highlighted below:

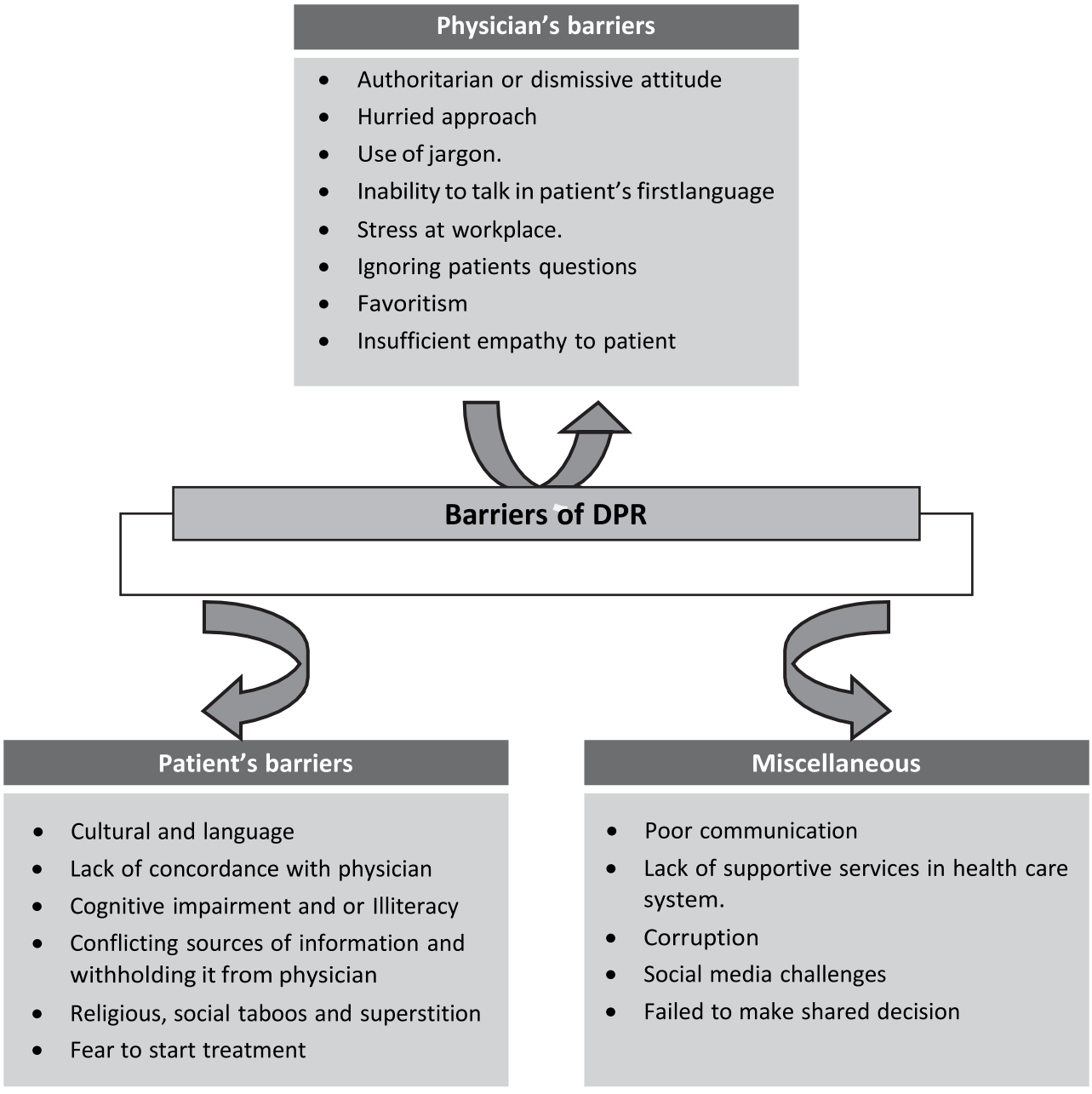


Figure 5: Barriers of DPR

Assessment of DPR

Assessment will be done based on the Miller's pyramid

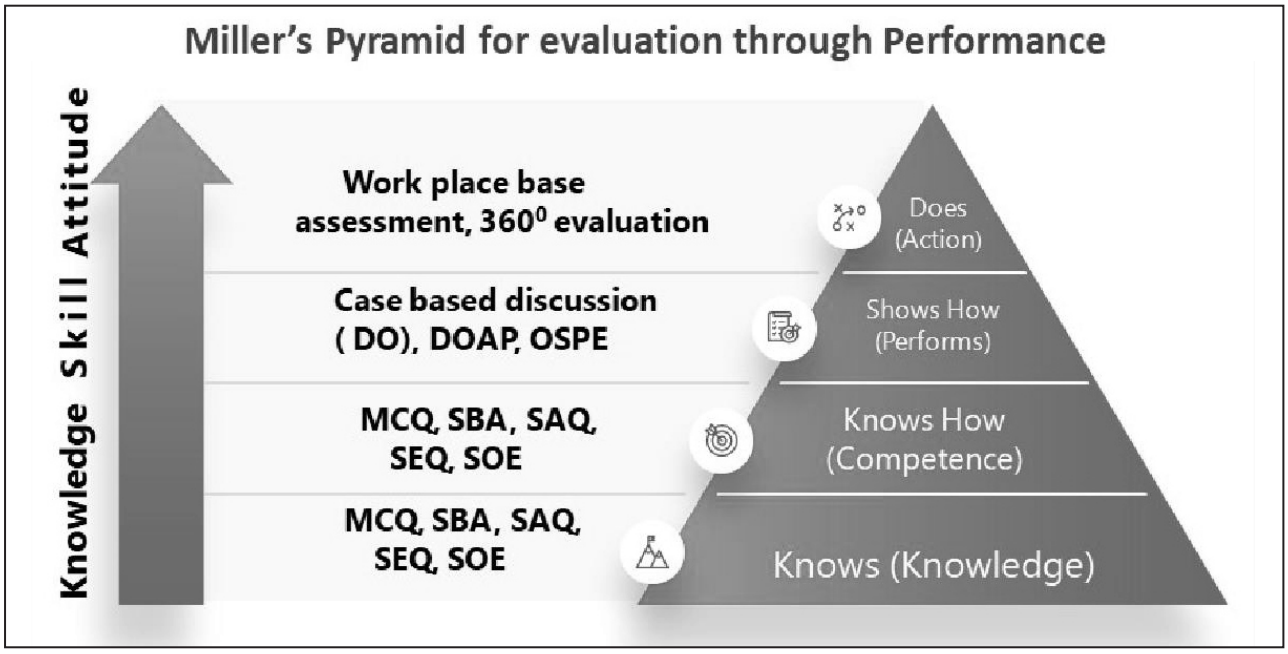


Figure 6: Assessment of DPR

Method of assessment of efficiency according to Miller's Pyramid

Learning Objectives	Domain	Level of Assessment	Suggested AssessmentMethod	Suggested LearningMethod
Concept	Knowledge	Knows, Knows how	MCQ, SBA, SAQ, SOE	Interactive Symposium Lectures
Elements	Knowledge, Skill Attitude	Knows, KnowsHow, Shows How	MCQ, SBA, SAQ, SOE, Case based study (DO)	Interactive Symposium Lectures, Role play
Models	Knowledge, Skill Attitude	Knows How, Shows How	MCQ, SBA, SAQ, SOE Case based study(DO) DOAP, OSCE, OSPE	Audio visual aid,Role play
Comparison between Models	Knowledge, Skill, Attitude	Knows How, Shows How	MCQ, SBA, SAQ, SOE Case based study (DO) OSCE, DOAP	Interactive Symposium Lectures, Audio visual aid, Role play
Challenges	Knowledge	knows Knows How	MCQ, SBA SAQ, SOE	Audio visual aid,Role play
Behavioral improvement	Skill, Attitude	Does	Case based discussion, 360^0 evaluation	Audio visual aid,Role play
SAQ= Short answer question; MCQ = Multiple choice question; SBA = Single best answer; SOE + Structured Oral examination; OSPE = Objective Structured Practical Examination; Case Bases Study (DO/ Direct Observation)= History taking, Investigation plan, Treatment Plan, Counseling; DOAP = Demonstration-Observation-Assistance & Performance				

Conclusion

The doctor-patient relationship (DPR) is characterized by honest communication, empathy, mutual trust, and respect which are the cornerstones of effective healthcare delivery. Prioritizing patient-centered care and developing strong therapy connections can help healthcare providers improve patient satisfaction, adherence to treatment plans, and overall health outcomes. Healthcare workers must always strive to enhance their communication abilities, maintain professionalism, and promote ethical standards in order to build enduring and meaningful connections with their patients.

Take Home Message

The take away message of this presentation on doctor-patient relationships is likely to emphasize the importance of effective communication, empathy, trust, and mutual respect between healthcare providers and patients.

These elements are fundamental for building strong therapeutic alliances, enhancing patient satisfaction, and improving health outcomes.

"To be great at something, you have to come at it with passion or none at all".

PEACHY GARCIA

Bibliogrpahy

1. Hope T. Medical ethics: A very short introduction. 1st ed. OUP Oxford Publishers. 2004.
2. QT, Inc v. Mayo Clinic Jacksonville,2006 US Dist. LEXIS 33668,at *10 (ND Ill May 15, 2006).
3. Emanuel EJ, Emanuel LL. Four models of doctor-patient relationship. JAMA. 1992 Apr 22- 29;267(16): 2221-6.
4. Aoun A, Al Hayek S, El Jabbour F. Is there a need for a new physician-patient relationship? Fam Med Prim Care Rev. 2018;20(4):369-384.
5. Reddy KSN. The Essentials of Forensic Medicine & Toxicology. 35th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2022.
6. Medical Council of India. Competency Based Undergraduate Curriculum for the Indian Medical Graduate. Vol 1. 2018.
7. Mehay R, Burns R. Miller's Pyramid of clinical competency. In: Mehay R, editor. The Essential Handbook for GP training and education. London: Radcliffe Publishing Limited; 2009.
8. Mars M. Medicolegal, ethical, and regulatory guidelines pertaining to telehealth. In: Mars M, ed. Fundamentals of Telemedicine and Telehealth. Cham: Springer; 2020.
9. Davidson's. Principles and Practice of Medicine. 21st ed. Edinburgh: CHURCHILL LIVINGSTONE Elsevier Publisher Ltd; 2010.

Topic 8: Physicians' Bedside Manner, Etiquette and Rapport Building with Patients

Md. Abdus Sattar, Tarek Shams

Outline	
Topic	**Physicians' Bedside Manner, Etiquette and Rapport Building with Patients**
Learning objectives	At the end of the session, students will be able to • define "manner," "etiquette," and "rapport building." • explain the significance of good manners in medical practice. • discuss the negative impacts of poor bedside manners by doctors. • identify ways developing good manners and building rapport with patients and their attendants
List of contents	• Definition of manner, etiquette and rapport building • Hippocrates and religious quote on manner and etiquette • Importance of good manners of doctors • Means of development of good manner and rapport with patients and attendants • Examples of manner, etiquette and rapport building with patients
Method	• Interactive lecture • Seminar
Time	• One and half hour

Introduction

Fundamentally, bedside manners characterize the rapport a physician has with their patient. When one hears the phrase "bedside manner," one may portray a picture of a trusted physician tending to a sick patient's bed. Good bedside manners, characterized by empathy and attentive listening, encourage patients to openly discuss their health issues, leading to better outcomes. While some doctors naturally gifted in this area, others may need to develop these skills early in their careers to effectively build rapport and trust with patients. Therefore, physicians should learn bedside manners early in their careers since they can set the tone for their entire professional career.

A. Definitions:

a. Manners: 'Manners are the codes of socially accepted behavior'. (Wikipedia).

b. Etiquette: 'Etiquette is a code of conduct for polite behavior in a specific group or profession'. (Collins Advanced Learner's Dictionary)

c. Rapport: rap port [raˈpɔː] 'A close and harmonious relationship in which the people or groups concerned understand each other's feelings or ideas and communicate well.' (Oxford Dictionary)

B. Hippocrates and Religious Quotes on manner and etiquettes:

1. Hippocratic Thought on Bedside Manner-

The Greeks (4th century B.C.) were very specific about physician bedside manners. In the Hippocratic corpus, this comment is included: *"The physician ought also to be confidential, very chaste, and sober, not a winebibber, and he ought to be fastidious in everything, for this is what the profession demands. He ought to have an appearance and approach that is distinguished. Everything ought to be in moderation, for these things are advantageous, so it is said. Be solicitous in your approach to the patient, not with head thrown back (arrogantly) or hesitantly with a lowered glance, but with head inclined slightly as the art demands"*

2. Religious Quotes on Manner and Etiquettes:

"Live amongst people in Such a Manner that if you die, they weep over you and if you are alive, they crave for your company."
-Imam Ali (AS)

"If you knew the importance of Adab (Good Manners). You would pray to Allah for more Adab. Instead of more (material) Wealth."
-Ali (R.A), (Sahih Bukhari).

"Treat others with respect. How you treat others will be how they treat you."
-Gautama Buddha.

C. Importance of Good Bedside Manners for Doctors:

Arising from the teachings of Hippocrates, a renowned physician from ancient Greece, the idea of good bedside manners remains crucial in modern healthcare.
Key Benefits of Bedside manners-

1. **Enhancing Patient Comfort**: Patients often come to medical facilities with a mix of emotions such as confusion, fear, or ignorance about their conditions. Physicians who exhibit excellent bedside manners can alleviate these feelings, reassuring patients that they are receiving proper care and reducing their anxiety. This often leads to higher patient satisfaction and improved health outcomes.

2. **Promoting patient transparency**: Good bedside manners build trust, encourage patients to be more open about their symptoms. This transparency allows healthcare professionals to tailor treatment plans more effectively, leading to better management of the patient's condition.

3. **Improving professional reputation**: Physicians known for their good bedside manners are often held in high regard by their peers and patients. Positive patient testimonials and referrals can enhance a doctor's professional image, foster long-lasting patient relationships, and improve the quality of medical care provided.

D. Negative Effects of Physician's poor manner

Poor behavior by a physician during bedside visits can have a number of negative consequences that are important to recognize.

1. Effects on Patients' Emotional Health: Inappropriate behavior at the bedside can aggravate the patient's emotional state, worsening anxiety and discomfort. Building a trusting relationship with a rude or uncaring health care provider becomes difficult

2. Deterioration of the patient-doctor relationship: A positive relationship between doctors and patients is essential. Bad manners can seriously damage this dynamic, making effective communication difficult for both parties.

3. Adverse psychological and physical consequences: Disrespectful behavior impedes cooperation and communication, reduces staff morale, and increases the frequency of resignations. Poor manners may also make patients feel vulnerable, fearful, furious, nervous, depressed, or anxious.

4. Stress and dehumanization: Psychological stresses and technological advancements lead to dehumanization. Doctors may adopt mechanical behaviors while ignoring the emotional needs of patients. Such stressful conditions can reduce a doctor's compassion for patients.

5. Medical malpractice litigation risks: Studies show that the likelihood of being sued for malpractice has less to do with a doctor's error rate and more to do with their interpersonal skills. Highly qualified doctors who lack good medical practices are often sued by patients, while those who make more mistakes but maintain a great relationship may not face legal challenges. Good manners are critical to

reducing the risk of malpractice and are often a key factor cited by patients when expressing satisfaction with their physician.

E. Mention the means of developing good manners and rapport with patients and attendants:

"The good physician treats the disease; the great physician treats the patient who has the disease." -Sir William Osler.

To build trust with their patient's, good bed side manner is invaluable. Doctors with good bedside manner have a better rapport with their patients and provide better care. So, hospitals and facilities are prioritizing developing positive bedside attitudes among staff to ensure patient satisfaction.

F. Key components of good bedside manner:

1. Focus on patient

In the bustling healthcare environment of Bangladesh, where the volume of the patient is high, the ability to focus on each patient individually is paramount. In such settings, distractions are common-ranging from crowded waiting rooms to the constant influx of emergencies. Despite these challenges, healthcare providers must try to maintain a calm and composed demeanor. This involves being present in the moment with the patient, putting aside other concerns while in consultation, and actively engaging with the patient's issues.

2. Active listening

The single most crucial aspect of good bedside manner is taking the time to listen to your patient without interruption. For instance, when your patient is talking to you, you can show that you are actively listening by maintaining a comfortable level of eye contact and nodding your head when appropriate. Many healthcare professionals already have a diagnosis in their head before they fully hear what their patients have to say. A patient knows how they feel, so listen for anomalies or inconsistencies, even if they aren't totally right. If you truly listen, you can find clues to issues you might not have thought about. Sometimes cultural and social norms in Bangladesh may cause some patients to communicate about their symptoms indirectly, perhaps due to embarrassment or the sensitive nature of their problem. It is important for healthcare providers to recognize these indirect communications and encourage more open dialogue, ensuring that any concerns are taken seriously. It also helps your patient trust you. People love when they are taken seriously and when they have someone's full attention.

3. Verbal communication

Effective communication is the cornerstone of good medical practice, especially in a diverse country like Bangladesh. When health care providers interact with patients of different backgrounds, cultures, and languages, it is important to tailor communication strategies to meet the needs of each individual.

In Bangladesh, where many patients may not have a high level of formal education or may be more comfortable in their local dialects rather than formal Bengali or English, simplifying medical terminology is essential. Physicians and health care professionals should make a conscious effort to use common terms and avoid complex jargon that may confuse patients. For example, when explaining medical conditions or procedures, using familiar analogies or culturally appropriate examples can help make the information more relevant and easier to understand. This approach not only helps patients feel comfortable, but also allows them to actively participate in their health care decisions.

Furthermore, in health care settings such as Bangladesh, where family involvement in patient care is common and it is good to include family members in discussions when appropriate. This allows patients and their support network to fully understand their treatment plan and receive better compliance and support at home.

4. **Be Empathetic**

   As a healthcare professional, it's important to care for your patients and empathize with their circumstances. Sincere empathy can overcome many obstacles because it requires seeing the other person's point of view. Although meeting everyone's needs is difficult, it is not impossible and most people's needs are easily met.

   Remember that when a patient comes to see a doctor, he or she is not at his or her best. They may become sick or miserable and in the worst-case scenario, they face their own death. It's too easy for patients to just be bed or room numbers to us, especially at the end of a long shift. However, it is important to maintain compassion and recognize their needs. Even a small act of kindness can make a profound difference in how they feel. By showing true compassion, you can turn everyday interactions into moments of genuine human connection.

G. Practical skills that will help you fine-tune your bedside manner include:

1. Introduce yourself to patients and explain your role.
2. Greet them with a smile; a greeting ("good morning" "Salam" Adab); begin with-- open-ended questions, such as "How are you?"

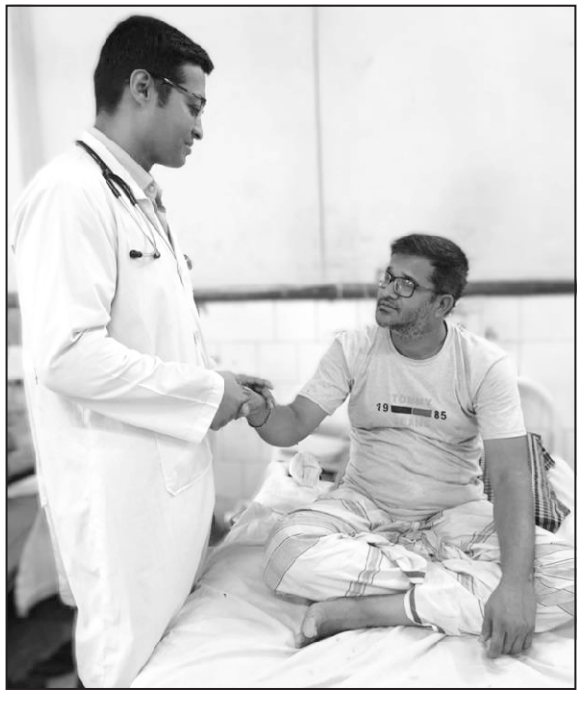


Figure: 1 A doctor warmly greets his patient, setting the stage for a trusting and collaborative medical consultation. © tarek shams (Consent taken from the patient and the doctor for publication)

3. Be friendly: Smile. Use body language that communicates that you care by sitting down, unfolding your arms, and making eye contact. Show interest in the patient and ask an unscripted question (it may be unrelated to the patient's current condition!).
4. Let the patient tell their story without interruption (the average physician interrupts at 20-30 seconds!)
5. Treat each patient as an equal partner in their care. ("No decision about me, without me")
6. Agree on what matters most and develop shared priorities
7. Set expectations and explain timelines.
8. Be candid but diplomatic and, above all, nonjudgmental.
9. Avoid the use of stigmatizing words, such as smoker, diabetic, drinker, demented, and mentally challenged. Use such alternative terms as history of tobacco use, substance use disorder, alcohol use disorder, vascular dementia, and person with intellectual disability.
10. Ask if they have any questions. "Were all your questions answered?" "Is there anything else I can do?"
11. Ensure Privacy-healthcare professionals are bound by the codes of conduct that ensure doctor-patient confidentiality.
12. End each encounter with a compassionate statement and direct them about the next steps

Figure 3- A doctor shares a joyful moment with her patient, demonstrating the profound impact of warmth and connection in healthcare © tarek shams (Consent taken from the patient and the doctor for publication)

Conclusion

Bedside manners, etiquette, and rapport building highlights the essential nature of interpersonal skills within the medical profession. Effective communication, compassion and respect are critical to improving patient care and well-being. Healthcare professionals are encouraged to apply these principles in their interactions recognizing their profound impact on patient confidence, diagnostic accuracy, and efficiency. Embracing these skills not only enhances the quality of care provided but also enriches the professional development of those in the medical field.

Assessment

Scenario 1:

Mr. Abdul Halim, a 65-year-old gentleman had been suffering from chronic low back for last 3 years. He consulted doctors of different specialties including internal medicine, physical medicine, orthopedics, neurosurgeons. He was diagnosed as a case of lumber spinal canal stenosis at L4 level. He was advised for surgery in Bangladesh. But he wished to take second opinion for this. Mr. Halim along with his son went to visit an orthopedic surgeon in hospital in neighboring country.

The assigned doctor in that hospital, welcomed Mr. Halim and his son Mr. Joynal. The doctor standing from his seat, came forward to receive them in the door. He addressed Mr. Halim as 'Sir'...asked how was his journey, asked his son (Mr. Joynal), whether he came to this hospital previously. He started with some non-technical issues.

Then he listened to the history from Mr. Halim. The doctor allowed him to describe his illness without interruption for 1-2 minutes; when stopped, doctor asked few 'open-questions' about pain, activities. Then, the doctor summarized what he understood from the history and inquired whether everything is discussed. He physically examined the patient and advised for few investigations and gave opinion for surgery.
Mr. Halim came out of the doctor's room; he was satisfied with the consultation. Although the decision regarding his treatment was same in both situations, in Bangladesh and abroad.

1. How can you make 'great first impression' in patient encounter?
2. Which aspect of the doctor's manner could be related to better satisfaction of Mr. Halim?
3. Do you think addressing the attendant and valuing them is important in the patient care?

Scenario 2:

A 30-year-old male got visited local Upazilla Health Complex with history of fever for one day and mild cough. Where a medical officer in outpatient department (OPD) took history and examined him and prescribed

antipyretics paracetamol and amoxicillin. At 3rd day of his fever, he again visited OPD with the reports, which were normal and was advised to continue the previous treatment. As his condition did not improve, one of his relative admitted him in this tertiary hospital at 4th day of fever, which was 20 kilometers away from his residence.

He got admitted in the medicine department of a medical college, where the attending doctor suggested some investigations, Inj. Ceftriaxone was added in management previous antibiotic was omitted. Two days after hospitalization, the patient's condition was not improved. In the round one of the consultants suggested, Chest X-ray PA view. The patient and the party were not informed about the diagnosis and reason for additional tests. The relative who helped in admission took him outside with discharge on risk bond (DORB).

Why the patient's party planned to go to a tertiary health care center, rapidly?

What was the reason that led patient to decide to go outside for care?

Which measures could motivate the patient and the relative in receiving care in hospital?

Bibliography

1. Zulman DM, Haverfield MC, Shaw JG, et al. Practices to foster physician presence and connection with patients in the clinical encounter. JAMA. 2020; 323:70-81. [PMID: 31910284] doi:10.1001/jama.201
2. The Doctor's Communication Handbook, Second Edition, Peter Tate, Radcliffe Medical Press Ltd. 18Marcham Road, Abingdon, Oxon, OX14 1AA. UK
3. https://www.acponline.org/about-acp/about-internal-medicine/career-paths/medical-student-career-path/patient-centered-care-and-good-bedside-manner#
4. She SJ, Xu YY. Effect of CICARE communication nursing model combined with motivational psychological intervention in patients with post-intensive care unit syndrome. World J Psychiatry. 2023 Sep 19;13(9): 707-713. doi: 10.5498/wjp.v13.i9.707. PMID: 37771643; PMCID: PMC10523197
5. https://www.ksat.com/health/2013/05/17/compassion-in-healthcare-improving-bedside-manner/
6. (SOURCE: http://www.ccyp.medicine.net; http://jama.jamanetwork.com/journal)

Topic 9: Integrity & Accountability of Medical Professionals

Enshad Ekram Ulla; Ismail Khan

Outline	
Topic	Integrity & Accountability of Medical Profession
Learning objective	At the end of the session students will be able to • define integrity and accountability in practice • mention importance of integrity and Accountability in medical practice • outline doctors' behaviors that demonstrate integrity and accountability • explain contribution of the team and system to integrity and accountability • state means of developing integrity and accountability of medical professionals • mention some current examples of integrity and accountability of medical professional
List of contents	• Definition of integrity and accountability in medical practice • Importance of accountability and integrity in medical practice • Outline doctors' behavior that demonstrates integrity and accountability • contribution of the team and system to integrity and accountability • means of developing integrity and accountability of medical professionals • Mention some current examples of integrity and accountability of medical professional
Method	• Interactive Lecture or • Seminar
Time	One and half hour

A. Definition

Integrity can be defined as, "A virtue consisting of soundness of and adherence to moral principles and character and standing up in their defense when they are threatened or under attack. This involves consistent, habitual honesty and a coherent integration of reasonably stable, justifiable moral values, with consistent judgment and action over time" (Miller-Keane & O'Toole, 2003). In healthcare settings we can define integrity as encompassing honesty, keeping one's word, and consistently adhering to principles of professionalism, even when it is not easy to do so.

Accountability usually refers to reliability and answering to those who trust us, including our patients, colleagues, and society in general.

Dr. AB demonstrated these attributes when he took responsibility for the error, corrected it, and apologized to the patient.

B. Importance of accountability and integrity in medical practice

Integrity comes from the Latin "integer", which means honest or incorruptible. The term "professional integrity" is therefore the quality of being honest and incorruptible in exercising any profession.

We, doctors and medical students are part of a profession named 'medical profession'. A professional is a person who is a member of a profession and the concept of medicine as a profession is founded on trust, and physicians are expected to practice medicine in accordance with the standards of intellectual and moral excellence.

Medical profession, once most respected among all professions, has been under scornful attack by the public. Complaints against doctors are on the rise, while the job satisfaction among the young medical graduates is on the decline. "I have a deep concern," acknowledges Arthur Kleinman, "…that at the same time that we are enabling doctors to become technologically effective we are disabling them from being humanly compassionate and responsive" (Blumer and Meyer, 2006, p. 8). According to Edmund Pellegrino, "the [medical] profession is losing its commitment to the kind of character traits requisite for protection of the welfare and interests of patients".

Dr. AB was treating patients in the emergency department. It was toward the end of a very busy shift and one of the last patients he saw had a lacerated wound in his right leg from an accident. As he has done dozens of times before, he wrote a prescription for flucloxacillin, handed it to the patient, and carried on. While reviewing charts at the end of his shift he suddenly noticed that the patient had a documented penicillin allergy. In a panic, he asked the nurses whether the patient had left. One nurse thought she saw the patient heading toward the pharmacy, so Dr. AB went to look. He saw the patient speaking with the pharmacist- they had caught the error and were just about to call the doctor. He was so relieved! He thanked the pharmacist and apologized to the patient for the mistake.

Together, they reviewed the patients' allergy history and selected a different antibiotic that was safe. The patient, although at first quite upset, was really pleased with the way the pharmacist and the doctor handled the issue, and appreciated Dr. AB's apology.

Integrity is widely regarded as a key virtue of professionals. Two main kinds of reasons are applied to

explain the value assigned to professional integrity. The first kind concerns to the fidelity to the fundamental goals of the role, that is loyalty towards the professional principles and teaching, and not undermining the name of the profession. The second kind of reason is assurance, that is placing the professional interest above self-interest.

In the twentieth century, medical care is conceptualized as more evidence based and patient centered than the paternalistic practices prior to that. The perception of quality-of-care is interpreted now a days not only by technical soundness of the clinicians, but also by the moral values of the providers. Professionally truthful and honest clinicians, who care for the safety of the patients and admit their mistakes are those who will lead to least amount of trouble.

A. Outline doctors' behavior that demonstrates integrity and accountability

As stated in the previous section, integrity and accountability are individual virtues of medical practice. They are essential for the safety of the patients and uplifting the professional values. Few of the attributes of personal accountability on the part of a medical professional are confidentiality, appropriate use of the social media, personal relationship with the patient and mitigation of conflict of interests.

Confidentiality

It is crucial to maintain confidentiality when providing patient care. Patients should be at ease discussing any aspect of their lives, even private ones, with their doctor or other healthcare provider, knowing full well that this information will be securely protected. Protecting the information our patients share with us is our duty, and it is even legally binding, as it is bounded by the Personal Information Protection and Electronic Documents Act in Canada and the Health Insurance Portability and Accountability Act (HIPAA) in the United States.

But as easy as it is to outline the importance of maintaining patient confidentiality, it is just as easy to see how breaches can occur. Consider the following scenario:

A surgical team is on the elevator talking about their patient list for the day. At first they are the only ones present, but at one floor three people get on. The senior resident is in mid-sentence, and continues, "We'll just go in and hack out the bowel. That's how Dr. R likes to do it- just hack it out. He'll need a colostomy after but it's no big deal." Two of the other residents chuckle, and the three onlookers stand in silence.

Is there a privacy or confidentiality issue here? Initially, it might not appear so, since no patient's name is disclosed, and no disease is mentioned. However, what if someone on the elevator was there to visit a friend or relative about to have bowel surgery? Or if someone else recognizes Dr. R's name or is headed to his office? It's reasonable for onlookers to wonder if it's their loved one being discussed. In spite of that, how might they feel about doctors discussing- and laughing about- patients casually? Now they might wonder if all doctors talk in this way about patients. In addition to breaching private information, this behavior undermines patients' trust in their healthcare providers. This certainly does not speak well for the institution or education system.

Many other ways can result in inadvertent breaches of patient confidentiality. Patients' names have been seen sticking out of pockets or left on cafeteria tables as sign-out lists. Frequently, patient-related discussions are conducted in coffee line-ups and hallway consultations in crowded emergency rooms.

Not only as an individual healthcare provider, the medical team and the institution also have the shared responsibility in this regard.

Use of the Internet

The first month of Dr DH's medical internship has just begun. In the past, she enjoyed an active social life, but working long hours has made it increasingly difficult to keep in touch with her friends. Her Facebook page is active and she frequently shares her thoughts and feelings with followers and friends. Following a particularly difficult shift in the emergency department, she posted about it, stating, "The ward tonight was a complete zoo!" There were people coming from everywhere with all kinds of issues that were not even emergencies. Then they expect us to pick up the pieces after spending years smoking and drinking and not taking care of themselves. It's really frustrating that they're burdening the system.

Does DH appear to have acted unprofessionally? As far as confidentiality is concerned, she hasn't named anyone or provided any particular information that could identify an individual patient or healthcare provider. But it would not be difficult to figure out to which hospital and/or medical center she is referring. It is a matter of integrity. Before the Internet, she might have said these same words over the phone to a friend or family member. Those of us from previous generations may wince at remembering how we vented after difficult shifts. However, two key differences exist. The first is the public nature of the Internet. Although it is possible to restrict one's presence so that only "friends" can see postings, a recent study showed that only two thirds of medical students activated these settings (MacDonald, Sohn, & Ellis, 2010). Additionally, because friends are so loosely defined, family members and acquaintances not in the profession may see what is posted and may re-post or share with their "friends." The information posted can never be considered truly private. Secondly, there is the issue of permanence because what is posted online could potentially remain there forever.

In one study, students felt that guidelines would be helpful to teach them about boundaries, confidentiality concerns, and other issues related to online professionalism- but they rejected the idea of "rules," as they did not think it was fair to attempt to regulate their social lives (Chretien et al, 2010). In their view, if we trust students to look after patients, we should trust them to know right from wrong when it comes to social networking. It is with this spirit in mind that many guidelines for "digital professionalism" have been created. Rather than attempting to restrict or regulate what healthcare professionals can and cannot do online, they provide information and guidelines for use. Principles for online professionalism in medicine (Ellaway, 2010)

1. Establish and sustain an online professional presence that befits your responsibilities while representing your interests
2. Use privacy controls to manage more personal aspects of your profile and to not make anything public that you would not be comfortable defending as "professionally appropriate" in a court of law
3. Think carefully and critically about how what you say or do will be perceived by others and act with appropriate restraint while online
4. Think carefully and critically about how what you say or do reflects on others (individuals and organizations) and act accordingly
5. Think carefully and critically about how what you say or do will be perceived in years to come; consider every action online as permanent
6. Be aware of the potential for attack or impersonation, and know how to protect your online reputation and what resources are available to you in that event
7. An online community is still a community and you are still a professional within it

The preceding example focused on a medical student who used derogatory language about patients online, but similar issues arise when students post personal content about themselves. Apart from the obvious concerns discussed previously about who might view these postings and the potential for permanence, this highlights another issue, that of the tension between the “person” and the “professional.” Students often struggle when developing their new identities as healthcare professionals and sometimes chafe against new rules and constraints on their behaviors. But it is important to note that medical authorities and licensing bodies do not make this distinction, and precedents exist for physicians to be publicly sanctioned and reprimanded for behaviors that occur well outside the healthcare setting (e.g., incidents of “road rage” and personal income tax evasion).

Relationships with Patients

Clinicians have ample opportunity to demonstrate integrity and accountability when it comes to their relationships with patients. Maintaining appropriate boundaries is a fundamental skill that all healthcare professionals must learn, and it is an area in which lapses, when they occur, can be particularly serious and damaging. Everyone has heard or read of cases in which physicians have become sexually involved with their patients. Thankfully, these occurrences are relatively rare overall, but they are still one common reason for physicians to lose their license to practice medicine (Alam et al, 2011).

Some authors have drawn distinctions between boundary *violations* and boundary *crossings*, which are thought to be milder and more innocent, but which might, over time, develop into violations.

> *One commonly cited example of a boundary crossing is an elderly patient who gives homemade cookies to her family doctor. Refusing such a gift may do more harm than good, by embarrassing the patient and making her feel self-conscious or uncomfortable. Instead, one might thank the patient, being sure to inform her that gifts are not necessary, and share the cookies with the entire office, making the gift seem less personal.*
>
> *On the other hand, if a patient brings gifts to every encounter, or the gifts are expensive or personal in nature, it is a different story. The physician should be aware that accepting such gifts is considered to be undesirable, because it runs the risk of altering the physician–patient relationship and contributes to a loss of objectivity. This can affect patient care by consciously (or unconsciously) treating that patient's symptoms as more or less serious, or being persuaded to order unnecessary tests or treatments.*

Managing Conflicts of Interest

The Institute of Medicine has defined a conflict of interest (COI) as, "A set of circumstances that creates a risk that professional judgment or actions regarding a primary interest will be unduly influenced by a secondary interest" (Lo & Field, 2009). The primary interests usually refer to patients, whereas secondary interests usually mean financial gains but also can mean professional advancement, recognition for personal achievement, and favors to friends and family, among others. There is a professional obligation in medicine to manage COI in the best interest of the patient. This obligation is based on the principle of the primacy of patient welfare.

FINANCIAL COI IN CLINICAL PRACTICE - When doctors profit financially from more services recommended, laboratory tests ordered, surgeries performed or prescriptions written, they may offer services that are of little value to the particular patient. Kickbacks are payments to clinicians and others for referral of patients. The risk here is unwarranted referrals or referrals to persons not appropriately competent for the patient's problem.

COI IN RELATIONSHIP WITH INDUSTRY - Gifts and free drug samples given to doctors create relationships beyond the professional realm, which may generate obligations and expectations of reciprocation.

> *Dr AB is a pediatrician at the academic hospital's outpatient pediatrics clinic. Recently, 2 representatives from RD Pharma, a pharmaceutical company that develops and markets asthma medications for children, arrived at the office and asked if they can provide a catered lunch next week for the entire office staff. They also asked Dr AB if he would be willing to speak at an upcoming medical conference sponsored by the pharmaceutical company. Before they depart, the representatives leave dozens of samples for a new asthma medication on the front office desk. Is there a chance of COI?*

COI AND MEDICAL RESEARCH- Doctors have a primary interest in the integrity of research and science. Financial support from industry can result in COI. Advancement in academic careers depends on success in research, patents and publications. COI emerges when the integrity of science is sidelined.

> *Dr H is a pediatrician with a busy outpatient practice. Recently, he received a letter from a contract research organization mentioning a current client company that has a new attention-deficit/hyperactivity disorder (ADHD) drug in phase III randomized controlled trials and is looking for physicians who can recruit patients to participate in a 2-year trial. They ask Dr H whether he would be willing to recruit up to 20 patients, and they offer him 50000 taka for each patient he enrolls in the study. All medical care received by participants in the study would be paid for by the pharmaceutical company. Dr Hernandez is puzzled as to what he should do. He believes there is a role for this new and promising ADHD medication in his practice, but wonders about the specifics of this agreement. Is there a chance of COI in this case?*

DOCTORS WITH DUAL OBLIGATIONS IN MEDICAL RESEARCH - Clinician-scientists switch roles from being healers to scientists when conducting research and have dual obligations to the welfare of the patient and scientific integrity. COI occurs when clinician-scientists recruit patients to participate in research where they are the clinical investigators. Patients may be under therapeutic deception.

COI AND THE DOCTOR AS A MEDICAL EXPERT - Doctors are called upon to serve as medical expert witnesses in the court of law, medical disciplinary tribunals of professional misconduct or complaint committees, and peer reviews of hospitals and professional bodies. COI may arise if the doctor has any social or financial relationship with either of the parties.

COI AND THE DOCTOR SITTING IN JUDGEMENT OF COLLEAGUES - Doctors may be called upon to sit in judgement of their colleagues' performance. They are expected to be objective and serve without favour or fear. When there are COIs, the weighing of the facts and the arrival at judgement would be compromised by undue influence of secondary interest. The law requires a high standard of avoidance of COIs.

Doctor A, a surgeon, received a letter from the court, for a request to be a medical expert witness for a disciplinary tribunal case. Doctor A has the experience and expertise to be an expert witness in this case. The defendant doctor, Doctor B, was his medical college roommate more than 20 years ago. They were in the same medical school but of different class and were surgical trainees at X hospital about 10 years ago. They were both active members of the College of Surgeons at different times. Doctor B now works in a private hospital. Doctor A is the Head of Surgery at Y government medical college hospital. Doctor A wonders whether he should exclude himself as an expert witness on the grounds of conflict of interest. Since the medical tribunal is part of the medical council and under the purview of the ministry, which is indirectly his employer, he should not be defending a doctor from a private hospital. He is also concerned that he may have to write a favourable report for Doctor B, as they were very close and are now collegiate members of the College of Surgeons.

A. Role of the Team in Integrity and Accountability:

Team members can play a key role in integrity and accountability. It is by reporting impaired or incompetent colleagues, participating in peer review and multisource feedback, and disclosing and investigating medical errors.

Reporting an Impaired or Incompetent Colleague

A group of three medical students came to talk to the rotation coordinator on internal medicine during their 3rd-year clerkship about Abdullah, a fellow student who seemed to be struggling In particular they felt that Mark was very anxious and not coping well, and they were worried not only about his safety but also his efficacy as a medical provider. They asked the rotation coordinator what they should do. The coordinator thanked them for bringing the issue forward, recognizing that it was not easy for them to do, and gathered more specific information. She then met with Abdullah and told him that others were a bit concerned that he wasn't doing well. At first, Abdullah was embarrassed, but after a few minutes he expressed relief that others had actually noticed and wanted to help. He disclosed that he had been having major personal stresses and had struggled on previous rotations. The rotation coordinator liaised with the student support offices and Mark was able to receive appropriate care before returning.

Students who came forward in this situation showed insight and courage. All too often a colleague in distress is ignored or avoided. In a recent study, when responding to hypothetical scenarios, internists were often reluctant to approach a colleague in apparent difficulty, expressing concern about crossing boundaries, being uncertain or incorrect regarding their suspicions, and believing that other people (or "the system") would take care of it (DesRoches et al, 2010; Ginsburg et al, 2012).

Physicians have an ethical duty to report impaired or incompetent colleagues in order to protect the public (American Medical Association, 2013b). Impairment is loosely defined as a condition that "interferes with a physician's ability to engage safely in professional activities." This may take the form of addiction or mental health diagnosis and treatment, or even removal from practice.

Peer Review and Multisource Feedback

Frequently, evaluations follow a one-way path, primarily originating from higher authorities. Medical students typically receive evaluations from their residents and staff, while nursing students are assessed by their supervisors. Similarly, residents undergo evaluation by attending staff and program directors. However, compelling evidence indicates that feedback from peers and other healthcare professionals can offer valuable insights into performance (Arnold et al, 2007).

As with peers, other healthcare professionals can provide invaluable feedback on performance, especially regarding behaviors that may not be visible or apparent to faculty, and this may be especially true for feedback about humanistic care. Example:

The surgical nurses and residents have noticed that a senior and well-respected surgeon, Dr. R, continues to use a particular surgical instrument that all of the other surgeons stopped using because of evidence suggesting that it was associated with more complications of a particular procedure. It is not clear to the team, who have discussed this in hallway conversation, whether Dr. Rasul knows that she is the only one still using this instrument, and it is not clear whether someone should mention it, or who should do so. The hospital has created standard surgical sets for a variety of different procedures, but not for this one.

It is possible that team members may feel uncomfortable and avoid the topic completely. As a result, patients could be exposed to unnecessary risk, as well as the surgeon herself. It is not possible for Dr. R to change her practice positively if she is not aware that she is using the equipment differently than others. Moreover, she would not be able to explain to the team why she practices the way she does. Having a multisource feedback system in place would provide a safe place for concerns to be raised and for appropriate feedback to be given and received.

A. Role of Institutions or the System in Instigating Integrity and Accountability:

Now a days healthcare is not provided just by an individual, but rather under the umbrella of an institution, like a hospital or clinic. Patient safety is the prime concern of the institution as of its individual members.

Institutional patient safety practices could be multidimensional; from privacy of patient's medical information to developing a culture of high value in the healthcare provision to the mitigation of medical errors. For example, the institution can impose encryptions in their computers and servers to prevent breaches of patient information from the system. Similarly healthcare settings can shape a culture of integrity and accountability by supporting the disclosure and analysis of medical errors, and by learning from the errors to prevent similar errors from occurring to other patients.

Disclosing errors could be difficult. Errors are devastating for the individual physicians; they feel isolated and exposed to the patient's family, society and their peers. Guidelines underscore the need to discuss the error among team members, disclose the error, and analyze the error. Healthcare institutions are key to helping to build a supportive environment to allow and facilitate these kinds of open discussions, to build an infrastructure to conduct the analysis of errors, and to build systems for prevention. In the following example we can see how an error can happen and what the institute can do.

Mr. H, an 80-year-old male with multiple medical problems, presents to the hospital for confusion and is diagnosed with a urinary tract infection. He is admitted to the general floor under the care of Dr. W.

Mr. H gets up from his bed unassisted at 2 a.m. on hospital day two to go to the toilet and falls, hitting his head against the baseboard of the wall. He is found unconscious on the floor bleeding from a scalp laceration. CT head revealed a minor acute subdural hematoma, and he was transferred to the ICU under the supervision of the neurosurgeon. Mr. H was on a routine dose of a blood thinner following stent placement for coronary artery disease and in the ICU, he received a platelet transfusion. His repeat CT brain scan at 24 hours is unchanged. He does well and is transferred out of the ICU on hospital day five.

The patient's daughter and sons were furious about the fall and resulting injury, prolonged hospital stay, and cost of the treatment. They ask Dr. W, "How can this have happened in a hospital? It seems like he would have been safer at home. Isn't bleeding in the brain really dangerous? He could have died, couldn't he? What about the bill? And what about the follow up visits with the neurosurgeon… who is going to pay for all of this?"

In this case a mistake had happened, and someone could have been responsible. The financial and psychological loss on the part of the patient's family had been immense. What the hospital may do is, they can take the responsibility for the error and say sorry to the enraged family and mitigate the imparted financial losses. Later on, the institution can discuss the case in their morbidity-mortality round and find out what could have gone wrong and how such mistakes could be prevented in the future. This is how an institution can share the responsibility of an error among its stakeholders and increase the integrity and accountability of its healthcare providers.

B. Role of the Medical Licensing body

Medical licensing body, that is BM&DC in Bangladesh is the ultimate keeper of the professional sanctity of the medical profession in the country. It has the duty to oversee the medical curriculum and the quality of safe medical practices by the licensed medical professionals. In case of any proven lapses in the integrity by any physician, the professional body has the power to restrict the license of the practitioner.

C. Conclusion:

The public's trust in physicians and the profession depends on integrity and accountability. We have the privilege of self-regulation because we are committed to being accountable to the public. Physicians must not take this privilege for granted, as it can be revoked once breached.

D. Key Learning Points

1. Maintaining the public's trust in the profession requires integrity and accountability.
2. A physician, resident, and student's responsibility is to behave in a manner that is deserving of this trust by protecting patients' confidentiality, acting responsibly in our professional, personal, and online lives, maintaining appropriate boundaries with patients, and avoiding and managing conflicts of interest.
3. As a team, we must recognize and report impaired or incompetent colleagues, participate in peer review and multisource feedback, disclose and investigate medical errors, and ensure safe and effective care transitions.
4. The healthcare setting has an important role to play in preventing, detecting, and investigating errors, as well as supporting physicians in the aftermath.
5. It is the professional organizations' responsibility to ensure the profession's autonomy while remaining transparent and accountable to the public.

Assessment plan

MCQs:

The MCQs are the best of five.

1. Which of the following best describes the concept of professional integrity in healthcare?
   A) Prioritizing personal interests over patient care
   B) Adhering consistently to moral principles and professional standards
   C) Avoiding difficult conversations with patients
   D) Seeking the maximum financial gain from treatments
   E) Limiting patient interactions to clinical settings

2. In the context of medical accountability, what does it primarily refer to?
   A) The ability to shift blame to others
   B) Being answerable to oneself, patients, and the community
   C) Having a high volume of patients without regard for quality
   D) Ignoring errors to maintain reputation
   E) Avoiding transparency with colleagues and patients

3. Which scenario most clearly illustrates a violation of patient confidentiality?
   A) A physician discussing treatment plans with a patient
   B) A surgical team discussing patient cases in a crowded elevator
   C) A nurse updating a family member about a patient's progress
   D) A healthcare provider sharing patient data with a research team after obtaining consent
   E) A medical student writing a report about a case for academic purposes

4. How should medical professionals handle conflicts of interest to maintain integrity?
   A) Conceal any financial ties to pharmaceutical companies
   B) Be transparent about financial interests and potential biases
   C) Prioritize personal relationships over patient needs
   D) Avoid discussing potential conflicts with patients
   E) Accept gifts from pharmaceutical representatives without question

5. What is one significant responsibility of healthcare institutions in promoting accountability?
   A) To minimize communication between staff and patients
   B) To develop and enforce a culture of patient safety and quality care
   C) To prioritize profits over patient outcomes
   D) To allow medical errors to go unreported
   E) To isolate medical professionals from ethical discussions

Answers:
1. B
2. B
3. B
4. B
5. B

SAQs

Question 1

Dr. Abdul is a general practitioner who mistakenly prescribes a medication to a patient without checking for allergies. The patient has a severe allergic reaction and is hospitalized. Dr. Abdul realizes his mistake and informs the patient, apologizing for the oversight.

What does Dr. Abdul's response to the medication error demonstrate about his accountability as a medical professional?

Answer:
Dr. Abdul's response illustrates his accountability by acknowledging his mistake and taking responsibility for it. By informing the patient and apologizing, he demonstrates transparency and a commitment to patient safety. Such actions are crucial in maintaining trust between the patient and the healthcare provider. Accountability involves not only admitting errors but also learning from them to prevent future occurrences. It reinforces the idea that medical professionals must prioritize patient welfare, even when it means facing difficult conversations about their own shortcomings.

Question 2:
During a team meeting, Dr Fatima discovers that Dr. Shams has been using an outdated surgical technique that has been linked to higher complication rates. Despite her concerns, she hesitates to speak up because Dr. Shams is well-respected among the staff.

What ethical considerations should Dr Fatima take into account when deciding whether to report Dr. Sham's practice?

Answer:
Dr Fatima should consider her ethical obligation to prioritize patient safety over professional relationships. The principle of beneficence requires healthcare professionals to act in the best interest of patients, which includes advocating for evidence-based practices. Additionally, the concept of accountability means that all team members have a responsibility to report unsafe practices, regardless of the hierarchy. By speaking up, Dr Fatima not only protects patients but also contributes to a culture that values integrity and collaborative care. She must weigh the potential risks to her professional rapport against the ethical duty to ensure high-quality patient care.

Question 3:
Medical intern Johair posts on social media about a challenging shift in which he expresses frustration with patients he perceives as non-compliant. He does not mention specific names but shares details that could identify the hospital.

How does Johair's social media post impact his professional integrity and what actions should he take to rectify the situation?

Answer:
Johair's social media post undermines his professional integrity by breaching patient confidentiality and displaying unprofessional behavior. Even without naming specific patients, the content can erode trust, as it implies a lack of respect and empathy for those he serves. To rectify the situation, Tom should delete the post and publicly acknowledge its inappropriateness. Furthermore, he should reflect on the importance of maintaining professionalism in all aspects of his life, including online. Engaging in training on online professionalism may also help him understand the consequences of his actions and reinforce the values of compassion and respect integral to the medical profession.

Question 4:
Dr. Anirban has a financial interest in a pharmaceutical company that produces a drug he frequently prescribes. He often highlights the benefits of this drug to his patients without disclosing his financial ties.
What ethical issues arise from Dr. Anirban's situation, and what steps should he take to address potential conflicts of interest?

Answer:

Dr. Anirban's situation raises significant ethical issues regarding transparency and potential conflicts of interest (COI). By failing to disclose his financial interest, he compromises patient autonomy, as patients cannot make fully informed decisions about their treatment. To address potential COIs, Doctor should openly disclose his financial relationship with the pharmaceutical company to his patients, ensuring they are aware of any biases that may influence his prescribing practices. He should also consider limiting his involvement with the company to maintain professional integrity and uphold the trust that patients place in him as their healthcare provider.

Question 5:

A group of medical interns observes that one of their peers, Intern A, is consistently unprepared for clinical rounds, negatively affecting patient care. The group is concerned but unsure about whether to report this behavior.

What responsibilities do the doctors have in this situation, and what actions should they consider taking?

Answer:

The intern doctors have a responsibility to uphold patient safety and quality of care, which includes addressing the unprofessional behavior of their peer. They should consider discussing their concerns with Intern A in a constructive manner, providing feedback and support. If the behavior does not improve, they must escalate the issue to a faculty member or the appropriate authority, as reporting impaired or incompetent colleagues is an ethical obligation in medicine. By taking these actions, the students not only protect patients but also promote a culture of accountability and integrity within their educational environment, fostering an atmosphere where professionalism is paramount.

Bibliography

1. Alam A, Klemensberg J, Griesman J, Bell CM. The characteristics of physicians disciplined by professional colleges in Canada. Open Med. 2011;5(4):e166-e172. [PubMed: 22567070]
2. American Medical Association (AMA). *American College of Physicians- The Physician and the Patient.* 2013a. Available at: http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/about-ethics-group/ethics-resource-center/educational-resources/federation-repository-ethics-documents-online/american-college-physicians/acp-physician-and-patient.page#genetic
3. Arnold L, Shue CK, Kalishman S, Prislin M, Pohl C, Pohl H, Stern DT. Can there be a single system for peer assessment of professionalism among medical students? A multi-institutional study. Acad Med. 2007 Jun;82(6):578-586. [PubMed: 17525545]
4. Blumer, R.H., and M. Meyer. 2006. The new medicine. New York, NY: Middlemarch Films
5. Chretien KC, Goldman EF, Beckman L, Kind T. It's your own risk: medical students' perspectives on online professionalism. Acad Med. 2010 Oct;85(10 Suppl):S68-S71.
6. DesRoches CM, Rao SR, Fromson JA, Birnbaum RJ, Iezzoni L, Vogeli C, Campbell EG. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. JAMA. 2010 Jul 14; 304(2):187-193. [PubMed: 20628132]
7. Ellaway R. Digital professionalism. Med Teach. 2010;32(8):705-707.
8. Lo B, Field MJ. Conflict of Interest in Medical Research, Education and Practice. Ist edition. Washington, DC: National Academies Press; 2009.

9. MA, Laura & Reicherter, Daryn. (2015). Professionalism and Ethics in Medicine: A Study Guide for Physicians and Physicians-in-Training. 10.1007/978-1-4939-1686-3.

10. Marcum, J. A. (2012). The virtuous physician. In Philosophy and medicine. https://doi.org/10.1007/978-94-007-2706-9

11. MacDonald J, Sohn S, Ellis P. Privacy, professionalism and Facebook: a dilemma for young doctors. Med Educ. 2010 Aug;44(8):805-813. [PubMed: 20633220]

Topic 10: Attribute of a good Doctor

Sujat Paul, Md Faruk

Outline	
Topic	Aspects of a good doctor
Learning objective	At the end of the session students will be able to • list the qualities of good doctor • explain the role of a doctor in the society • mention expectation of the patient, attendance and society from a doctor • state the factors affecting expectation of the patient, attendance and society from a doctor • describe means of developing as a good doctor • mention some current example of good doctor.
List of contents	• Qualities of good doctor • Role of a doctor in the society • Expectation of the patient, attendance and society from a doctor • Factors affecting expectation of the patient, attendance and society from a doctor • Means of developing as a good doctor • Some current example of good doctor.
Method	• Lecture • seminar
Time	One And a half hours

In the recent past, doctors of Bangladesh are facing a lot of problems and obstructions during their clinical practice. It ranges from verbal abuse to physical assault etc.

The reasons for this may be:

i) Patients overload specially in government hospitals

ii) Arrogance of patients' attendant (Due to Power, Locality, Politics etc)

iii) Lack of interaction and communication with patients and attendants

iv) Social deprivation among mass people

v) Restless behaviour as well as physical and mental stress of the patients.

The doctor's community can't solve each and every problem. We can simply protect ourselves by improving our communication skills and strictly following the rules of medical ethics and professional obligations.

Compassion is a driving force of a human being. It includes sympathy, empathy and compassion. According to Dalai Lama, love and compassion are necessities, not luxuries. [1,2]

Without them, humanity cannot survive. Compassion is not only a religious business, it's a human business. This compassion is the bedrock of medicine.

Who are the Doctors?

Doctor is an academic title that originates from the Latin word of the same spelling and meaning. The word is originally an agentive noun of the Latin verb doc re, (Latin pronunciation) means to teach. They are responsible for providing health care related teaching among patients.

Hippocrates (460-357 BC) defined the physician's role very simply: Doctor must have two objectives in view regarding disease. These are:

"To Do Good or To Do No Harm"

It has also been described in ancient Charaka Samhita 400-300 BC. Charaka Samhita defined the attributes of an ideal medical student: "He (Medical student) should be of a mild disposition, noble by nature, never mean in his acts, free from pride, strong memory, liberal mind, devoted to truth, likes solitude, of thoughtful disposition, free from anger, of excellent character, compassionate, one fond of study, devoted to both theory and practice, who seeks the good of all creatures. The Charaka Samhita also includes sections on the importance of diet, hygiene, prevention, medical education and the teamwork of a physician, nurse and patient necessary for recovery to health.

A good doctor should have compassion and professionalism in consultation and communication. Medical professionalism is exemplified through what physicians actually do. How do they meet their responsibilities to individual patients and to communities? The American Board of Internal Medicine (ABIM) established Project Professionalism, which sought to define the components of medical professionalism, including altruism, accountability, excellence, duty, honor/integrity and respect.

Consultation is an important part of the daily activities of a doctor. Components of consultation are, listening to the patient, examining the patient, looking at investigations and finally prescribing. Prescribing is a rational approach to a series of challenges like, establishing a diagnosis, deciding a therapeutic goal and choosing appropriate drugs. For establishing diagnosis doctor has to emphasize on history (Which makes 70 to 80% of diagnosis) and if needed some investigations. Investigations should not be parsimonious, should be context-specific, evidence- based and resource-sensitive.

For pronouncing a diagnosis, a doctor should focus on matter of fact, without embellishment, maintain eye contact, reassure the patients, and ensure that patients may not be frightened. For pronouncing a difficult diagnosis, doctor should temper the arrogance of their knowledge with humility of wisdom, reassure the patients with diseases like autoimmune that, there is nothing the patient could have done to anticipate, avoid or prevent the disease, provide hope not hype, not use accusatory tone to the patients (Patients are victims not the culprit) and assure that it is never too late to treat though earlier is better.

Prognostication is at best an imprecise science. Doctors should avoid this practice of prognostication. Group statistics may not work at an individual level. Doctor should not claim to have astrological power.

One-upmanship is the death knell for a doctor. Doctors should never say "You have been treated wrongly" and should not run down their colleagues. All doctors try to do their best and physical findings may change or appear in the course of time. Hindsight is always better than foresight.

Good decisions come from experience and experience comes from bad decisions. So, a doctor should not criticize the prescriptions of juniors.

When dealing with the patient, common questions should be addressed first, like diet, exercise and other systems of medicine etc. Patients satisfactions should be the first priority. Doctor should not make fun with patient's belief and should not be derisive of other systems of therapy.

A good doctor should refrain from looking at smart phone and not text during a consult. While receiving a call during a consult, it should have to be very brief and avoid personal or pedestrian conversation. Never talk to the patient about diseases in the corridor, over the telephone or mail consultation.

While consulting an elderly people, doctor should be well conversant as there may be increased sensitivity to drug effects, reduced drug elimination, problems in drug adherence. Lower starting doses and slower dose titration of drugs are needed in elderly patients.

During consultations for less privileged people, a doctor should go out of their way to make them comfortable and have to be extra polite to those who come from a station of life lower than their own.

Having to be extra considerate and curbing impatience are needed in the last consult of the day. It may be nth patient for a consulting physician, but for the patient it may be the first doctor visit of the day.

Now few points should be considered when practicing medicine in low-resource settings. The problems associated with medical care in low-resource areas cluster in four domains:

i) Prevention Versus Cure: Prevention is more accessible, cheaper and more effective than a cure for many diseases. On the other hand, curative medicine is immediate, highly visible and glamorous. In developing countries more emphasis has been given on curative treatment and preventive care is less addressed due to financial obligations.

ii) Acute Versus Chronic Care: Acute medical care produces immediate and often gratifying results while treating chronic illness can be time-consuming and less rewarding. Facilities for chronic care are therefore accorded a low priority in many health-care systems.

iii) The Ideal Versus the Possible: Most medical management guidelines are derived from studies that were conducted in well-resourced health-care systems. In applying this knowledge to the developing world, there are tensions between best practices and what is possible. For example, anticoagulant therapy may pose risks that were not evident in the studies that underpin guidelines if it is prescribed in areas where reliable laboratories are not available and medications that interact with warfarin are commonly purchased 'over the counter'.

iv) Channels of Health-Care Provision: In developing countries health care may be delivered through government-run public clinics (Usually free or subsidized services) or non-governmental organizations (Sometimes subsidized but usually privately funded services).

A second opinion can be considered in some cases. It may be due to patients' interests or the doctor himself may seek other's opinion. "My decision is the best decision" is not applicable in sound practice.

"Conflict of interest" is a situation in which personal and/or financial considerations have the potential to influence or compromise professional judgment. Doctor should have to listen to their inner voice and not be provoked by any financial, social, political or other influences.

A doctor should abide by the rules of medical ethics. Ethics are obligations of a moral nature that govern the practice of medicine. There are six principles of ethics; Beneficence, Non malfeasance, Autonomy, Justice, Dignity, Truthfulness and Honesty.

Doctors should not approach the temple of science with the soul of a money chaser.

"Only a good man can be a great physician" should have to be remembered by a doctor.

A good doctor is a trusted professional guide, someone to help navigate medical information, a good listener, a caring person, a person who is available, open-minded, smart, intelligent and knows how to keep things light.

Patient wants to see seven traits in a good doctor-

I) Confident (The doctor's confidence gives confidence to the patient)

ii) Empathetic (The doctor tries to understand the patient's feelings and experiences physically and emotionally and communicates that understanding to the patient)

iii) Humane (The doctor is caring, compassionate and kind)

iv) Personal interest (The doctor is interested in people, more than just as a patient, interacts with the patient and remembers the patient as an individual)

v) Forthright (The doctor tells what patient need to know in plain language and in a forthright manner)

vi) Respectful (The doctor takes patient's input seriously and works with the patient), and

vii) Thorough (The doctor is conscientious and persistent).

Doctor should never discuss controversial issues with the patients like abortion, divorce, religion/race, politics, money/economic status, appearance e.g. weight, looks etc, heavy subjects like war etc.

Universal rules of professional obligations should have to be followed by a good doctor. These are:

Attitude: Always treat the patients with kindness and respect.

Behaviour: Recognize the human story that accompanies each illness.

Compassion: How would be a feeling by doctor in patient's situation?

Dialogue: Acknowledge and understand the individual. Dress and demeanour of a doctor should be soothing to the eyes of any people.

Finally, a good doctor should be physically, mentally, socially and spiritually sound.

In conclusion, doctors should have a balanced life, care for themselves and their families as well as for others. Doctors should be happy, healthy, caring, competent, and good travel companions for people through the journey, that's we call life. Doctors do not have a magic lamp, and there is no genie. They must use their own skills and endeavours to make the good doctors we want and need.

Assessment plan

Bibliography

1. Robert Svoboda. Ayurveda: Life. Health and Longevity. Penguin Books. 1992;189-190. ISBN978-0140193220.
2. MS Valiathan. An Ayurvedic view of life. Current Science. 2009;96(9):1186-1192.
3. Valiathan, M. S. The Legacy of Caraka Orient Longman. ISBN81-250-2505-7 reviewed in Current Science. 2003;85(7).
4. F.A. Hassler, Caraka Samhita, Science. 2018;22(545):17-18.
5. N Cooper, AL Cracknell. Clinical decision-making. In Ralston SH et al. editors. Davidson's Principle and Practice of Medicine, 23 edition, Elsevier ltd. 2018; 2-12.
6. Managing clinical encounters with patients. In Innes JA et al. editors. Macleod's Clinical Examination, 14th edition, Elsevier ltd. 2018; 3-7.
7. Hutchison's Clinical Examination. 24th edition, Elsevier Ltd. February 18, 2018.

8. Indian Academy of Sciences seen at, June 1, 2006. John Von Achen: Motivational speaker.

9. Medical council of India guidelines for doctors. https://www.aninews.in/news/national/general-news/nmc-comes-into-force-from-todayrepeals-indian-medical-council-act20200925002735/. lastaccessed on October 6, 2022.

10. Code of Professional Conduct, Etiquette and Ethics by Bangladesh Medical & Dental Council. www.bmdc.org.bd. Last accessed on October 5, 2022.

11. General Medical Council guidelines for doctor. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source= web&cd=&ved=2ahUKEwiL2

M3L4cr6AhVcE7cAHR8uDS4QFnoECAcQAQ & url=https%3A%2F%2Fwww.gmcuk.org%2Feducation%2Fstandards-guidance-and-curricula%2Fguidance%2Fstudentprofessionalism-and-ftp%2Fachieving-good-medicalpractice&usg=AOvVaw33ncCKiaNjotoSx-nYQK8z. last accessed on October, 6, 2022.

Topic 11: Medical Professionalism

Md. Ismail Patwary, Khandaker Abu Talha; Shantanu Das; Barsha Mojumder Papri

Outline	
Topic	Behavioral science
Learning objectives	At the end of the session, students will be able to • explain the terminology: professionalism, medical professionalism • state the importance of medical professionalism • explain the professional responsibilities in health care • mention the ways and means of improving medical professionalism
List of contents	• The terminology: professionalism, medical professionalism • Importance of medical professionalism • Professional responsibilities in health care • Ways and means of improving medical professionalism
Method	• Interactive lecture • Seminar
Time	• One and half hour

What is professionalism?

Professionalism is the conduct, behavior and attitude of someone in a work or business environment. Professionalism leads to workplace success, a strong professional reputation and a high level of work ethics and excellence.

Themes and subthemes of Professionalism are organized into five clusters:

- Adherence to ethical practice principles (honesty, integrity, confidentiality, etc.);
- Effective interactions with patients and with people (courtesy, empathy, respectful, etc.);
- Effective interactions with other people working within the health system (teamwork, patience, maintain professional boundaries, etc.);
- Reliability (accountability, punctuality, organized, etc.); and
- Commitment to autonomous maintenance and continuous improvement of competence (lifelong learning, seek feedback, reflectiveness, etc.).

There are eight (8) core characteristics of professionalism. They are:

I. Competence,

II. Knowledge,

III. Consciousness,

IV. Integrity,

V. Respect,

VI. Emotional intelligence

VII. Appropriateness

VIII. Confidence.

What is medical professionalism?

Medical professionalism is how a doctor looks and behave even when faced with challenges. The body of the individuals who work keep to maintain the health of their clients. It is the basis of medical professional contract with the society. It demands placing the interest of patients above those of the physicians.
Importance of medical professionalism

Being professional can ensure a positive first impression, successful interpersonal relationship and lasting reputation within the organization. Employees with a high degree of professionalism are frequently perceived as being more credible and reliable than their co -workers.

The domains of Professional responsibilities in healthcare are:

I. Patient safety and quality of healthcare,
II. Relating to patients,
III. Communication and interpretation skill,
IV. Collaboration and teamwork,
V. Management,
VI. Scholarships.

What is professionalism in ethics?

Professionalism is the attributes, behaviors, commitment, values and goals that characterize a profession. Most important factors of professionalism are honesty and integrity. The key elements of professionalism are responsibility, respect and risk -taking attitude. In medical professional, it encompasses strong societal role and involves emotional component too. On the other hand, ethics is the study of morality – careful and systematic analysis of moral decisions and behaviors and

practicing those decisions. Medical ethics focuses primarily on issues arising out of the practice of medicine. It is generally believed that professionalism and ethics are caught by watching the teachers and seniors and not taught formally. Professionalism and ethics are previously diffused passively to the students through "the hidden curriculum," but now it has been incorporated to the curriculum officially.

Difference between professional and professionalism.

Professional is a single entity and an expert in a specialized field of job who earns by selling his or her service. Professionalism denotes the quality of that individual and his ability to deliver the desired service to the end users.

Challenges of professionalism

The instability of professional commitments is ignorance towards individual or systemic excellence, weakness of accountability, lack of accountability, lack of integrity, disrespectful interpersonal and inter-professional relationships.

Ways and means of improving medical professionalism

There are 12 ways that can develop and practice professionalism-

I. Be productive, use your time productivity at work, focus on your job responsibilities and avoid getting pulled into social media, web browsing and phone activity while you are on the clock.
II. Develop a professional image, project a professional presence and dress appropriately for your industry or organization and the role of thumb is the dress is the position you expect to have.

III. Take the initiative, ask for more projects to be given to you or think of assignments that will use your organization's goal. You do not want to be underutilized,

IV. Maintain effective work habits, prioritize, plan and manage your assignments and projects, follow up and follow through with your supervisors and team members.

V. Manage your time efficiently, establish priorities, set goals and create action plans to meet deadlines

VI. Demonstrate integrity -Be accountable for your work and action while behaving ethically at all times.

VII. Provide excellence- produce work and results that reflects a sense of pride and professionalism open exceeding expectations.

VIII. Be a problem solver. When you run into problems and obstacles, take the time to brainstorm a few solutions and alternatives before you meet with your superiors.

IX. Be resilient. Develop coping skills to manage setbacks and challenges with a positive constructive attitude.

X. Communicate effectively. Practice professional online in person.

XI. Develop self -awareness. Learn to manage your emotions and gain awareness of your emotional triggers so you can manage your reactions positively and effectively.

XII. Build relationship. Network with colleagues, customers, clients to build professional cordial relationship, work on teams and collaborate effectively.

Ways of assessing professionalism
It can be assessed by using a combination of

I. Observed clinical encounters,
II. Multi -source feedback,
III. Patient's option,
IV. Paper -based test or simulation,
V. Measures of research and teaching activities
VI. Secreting of self -assessment compared with assessment of others.

Four (4) key indicators of professionalism

1. Consistently exceeding expectations:

When we think of professionalism, we tend to think of the employee who goes way above the call of duty. For example, a colleague could join on a Zoom call last minute to help solve a problem with another teammate. Or a leader could go above and beyond to make sure their employee is on boarded and up-to-speed in their role. Oftentimes, exceeding expectations comes with a healthy dose of learning as you go. To maintain a high level of professionalism, you need to be keen to learn and improve. True professionals don't rest on their laurels. They seek ways to be better at their job or to make their organization a better place to work, every day.

2. Creating an inclusive environment:

True professionals don't only stand out for their own excellence- they make it easier for those around them to excel too. It's about creating a culture of belonging where people feel they matter and belong. This includes creating a respectful workplace experience as an effective team member, having clear communication, ensuring people feel included, engaging and participating, and taking the time to know our fellow team members.

3. **Communicating effectively with teammates, customers, managers, and other stakeholders**
   Professionalism involves making sure that everyone involved in your work has the information they need to succeed. Great professionals are also great communicators. For instance, true professionals don't shy away from having difficult conversations. They will prioritize the good of the organization over their own discomfort.

4. **Demonstrating integrity and honesty**
   Professionalism is more than a question of workplace performance–it also comes down to integrity in the workplace. True professionals don't dabble in office politics, and they uphold the values of the organization they work for.

How has professionalism changed over the years?

Today's employees are renegotiating what professionalism should mean, and abandoning some outdated thinking about what it means to "be professional." For instance, professionalism in the workplace is NOT:

Conforming to traditional standards of appearance

Separating your "work self" and your "home self"

Hiding your emotions

Perfectionism

Scenario 1

In the surgery ward of a medical college hospital, the ward nurse asks the intern to remove the urinary catheter in bed 23 that underwent an appendectomy yesterday. The intern does this without checking order in the patient's file. After a few hours, the same patient develops urinary retention and severe bladder pain. It is later revealed that the patient in bed 22 had order to remove the catheter and not bed 23. The medical officer noticed the mistake of the nurse and the intern. The catheter is inserted again for that patient bed 23. The patient complains why the catheter was removed. To solve the problem, the medical officer tells the patient, we wanted to send the tip of the catheter to the lab for a culture test, so the catheter had to be removed and a new catheter inserted. The patient is satisfied. After leaving the patient's room, the medical officer curses the intern and gives him an extra evening duty as punishment.

Scenerio 2

You work in a district Sadar Hospital. You take alternate day emergency on calls and share the other on call days with Dr. Karim. Dr. Karim is a very sincere, energetic and disciplined doctor who is working in that hospital for last 2 years with good reputation. For last few weeks you have noticed that Dr. Karim has become distracted, irritable and has been late for rounds in several times. Yesterday, when Dr. Karim was on call didn't answer his mobile, the emergency doctor called you even though you weren't on call. The patient problem was straightforward and it was no trouble for you to handle it on your own. You told Dr. Katim about taking the call and he said his mobile is out of order. Then suddenly his mobile rung in his pocket and you found it is working properly.

Scenerio 3

You are working in the Emergency department. Your current case is Mrs. Shirin, a 35-year-old woman presenting with pain and bruising in her left wrist and shoulder. X-rays show a simple fracture to her left wrist. You take a history regarding the injury and find the following:

Shirin is a married, stay at home with two small children. Her husband, Jamal, is a day laborer with a substance use problem/history. Verbal abuse started when she was pregnant with her first child. After the birth of the second child he also started becoming physically abusive when under the influence of alcohol. She is currently

in the emergency department after he threw her against a wall three days ago. From the history you found that she suffered from shoulder joint sprain 3 months ago and fractured rib 1 year ago. She doesn't have any complaint against her husband's behavior and is sympathetic towards her husband's work problems. She is keen to get home as children are there without food.

SBA on Generic Lecture Professionalism

Instructions:

- Please tick (√) the correct answer
- One (01) score for each correct answer.
- No negative score
- Total time of examination: 20 minutes.

Q.1. Professionalism deals with behavior in-		
a. society, b. workplace, c. educational institution, d. family	Level- 2	Ans. b.

Q.2. Most important factor of professionalism is-		
a. Honesty, b. Respect, c. Confidence, d. Competence	Level- 1	Ans. a.

Q.3. How many characteristics of professionalism are there?		
a. 5, b. 6, c. 8, d. 12	Level- 1	Ans. c.

Q.4. Medical professionalism has the following impact		
a. social, b. scientific, c. educational, d. political	Level- 2	Ans. A.

Q.5. Key element of professionalism is-		
a. collaboration, b. management, c. knowledge, d. responsibility	Level- 1	Ans. d.

Q.6. To develop medical professionalism, one has to-		
a. work individually, b. work with integrity, c. competes with others d. be prompt in action	Level- 2	Ans. b.

Q.7. An efficient medical professional is -		
a. emotional, b. sensitive, c. reliable, d. scholar	Level- 2	Ans. c.

Q.8. Medical ethics-		
a. deals with practice of medicine, b. can be taught formally c. is the study of morality, d. involves emotional component	Level- 1	Ans. c.

Q.9. Professional denotes -		
a. Paid technical entity; b. Multiple entity c. Quality of an individual; d. Expert in various fields	Level- 1	Ans. a.

Q 10. Ethics and medical professionalism differed in		
a) Careful and systematic analysis of moral decisions b) Emotional component c) Risk -taking attitude d) Strong societal role	Level- 1	Ans. a.

Q 11. Professionalism has changed over the years by:		
a) Conforming to traditional standards of appearance b) Exposing your emotions c) Separating the “work self” from “home self” d) Keen perfectionism	Level- 1	Ans. b.

Q 12. ‘Professionalism’ is a Generic topic because:		
a) It is generalized, not specific for any discipline. b) It is related to Genetics c) It is about generic medications d) It was invented by an army General.	Level- 1	Ans. a.

Q 13. As an indicator, inclusive environment in professionalism		
a) Clear communication is not necessary b) Created by true professionals c) Has no culture of belonging d) Participation of others when needed	Level- 1	Ans. b.

Q 14. How many ways are there that can develop and practice professionalism.		
a) 8 b) c)11 d)12	Level- 1	Ans. d.

Q 15. Professionalism can be assessed by using a combination of except:		
a) Observed clinical encounters, b) Paper -based test or simulation, c) Patient's option, d) Only single -source feedback,	Level- 1	Ans. d.

Q 16. Indicators of professionalism includes		
a) Consistently exceeding expectations b) Creating an exclusive environment c) Avoidance of communication with stakeholders d) Masking integrity and honesty	Level- 1	Ans. a.

Q 17 Professionalism can be challenged by		
a) Good integrity b) Presence of systemic excellence c) Respectful interpersonal relationship d) Weakness of accountability	Level- 1	Ans. d.

Q 18.		
In the surgery ward of a medical college hospital, the ward nurse asks the intern to remove the urinary catheter in bed 23 that underwent an appendectomy yesterday. The intern does this without checking order in the patient's file. After a few hours, the same patient develops urinary retention and severe bladder pain. It is later revealed that the patient in bed 22 had order to remove the catheter and not bed 23. The medical officer noticed the mistake of the nurse and the intern. The catheter is inserted again for that patient bed 23. The patient complains why the catheter was removed. To solve the problem, the medical officer tells the patient, we wanted to send the tip of the catheter to the lab for a culture test, so the catheter had to be removed and a new catheter inserted. The patient is satisfied. After leaving the patient's room, the medical officer curses the intern and gives him an extra evening duty as punishment. Breach of medical ethics took place in this scenario as… ….a. Evil motivated medical officer. …. b. Insincerity in duty of the ward staff. ….c. Patient complain was ignored. ….d. The actual fact of the matter was not disclosed to patient.	Level-4	Ans. d.

Q 19		
You work in a district Sadar Hospital. You take alternate day emergency on calls and share the other on call days with Dr. Karim. Dr. Karim is a very sincere, energetic and disciplined doctor who is working in that hospital for last 2 years with good reputation. For last few weeks you have noticed that Dr. Karim has become distracted, irritable and has been late for rounds in several times. Yesterday, when Dr. Karim was on call didn't answer his mobile, the emergency doctor called you even though you weren't on call. The patient problem was straightforward and it was no trouble for you to handle it on your own. You told Dr. Katim about taking the call and he said his mobile is out of order. Then suddenly his mobile rung in his pocket and you found it is working properly.	Level- 4	Ans. c.

What will be your next step as a professional? ….a). Complaint against Dr. Karim ….b). Buying a new mobile for Dr. Karim ….c). Addressing and explaining your observation to Dr. Karim ….d). Asking money from Dr. Karim as you have done his duty.		

Q 20		
You are working in the Emergency department. Your current case is Mrs. Shirin, a 35-year-old woman presenting with pain and bruising in her left wrist and shoulder. X-rays show a simple fracture to her left wrist. You take a history regarding the injury and find the following: Shirin is a married, stay at home with two small children. Her husband, Jamal, is a day laborer with a substance use problem/history. Verbal abuse started when she was pregnant with her first child. After the birth of the second child he also started becoming physically abusive when under the influence of alcohol. She is currently in the emergency department after he threw her against a wall three days ago. From the history you found that she suffered from shoulder joint sprain 3 months ago and fractured rib 1 year ago. She doesn't have any complaint against her husband's behavior and is sympathetic towards her husband's work problems. She is keen to get home as children are there without food. Your professional responsibilities in this scenario exclude ….a).Collaboration …. b).Communication …..c).Confidentiality ….d). Helping the patient in personal level.	Level- 2	Ans. d.

Bibliography

1. American Board of Internal Medicine (ABIM). Project Professionalism https://medicinainternaucv.files.wordpress.com/2013/02/project-professionalism.pdf Accessed 2 May 2024
2. Cruess SR. Cruess RL. Professionalism: A contract between medicine and society. CMAJ. 2000:162:673-675.
3. Lawrence W. Is our level of professionalism where it should be? Bul Am Cot Surg. 2004:89(6)21-25.
4. Royal College of Physicians and Surgeons of Canada. CanMEDS 2015 Physician Competency Framework https://canmeds.royalcollege.ca/uploads/en/framework/CanMEDS%202015%20Framework_EN_Reduced.pdf Accessed on 25 April 2024.
5. Swick HM. Toward a normative definition of medical professionalism. Acad Med. 2000 Jun;75(6):612-6. doi: 10.1097/00001888-200006000-00010. PMID: 10875505.

Topic 12: Interprofessionalism

Md. Azizul Haque, Laila Shamima Sharmin

Topic	Learning objectives	Methods	Hour
Inter-professionalism	At the end of the session, students will be able to • Understand the importance of interprofessional collaboration to improve health care delivery and outcomes. • Learn about the methods of interprofessional collaboration. • Learn about the commonly encountered obstacles of interprofessional collaboration and how to mitigate them.	• Team-based learning • Simulation • Lecture • Seminar • Flip classroom method • Assessment and feedback	One and a half hour

Case scenario

A 23-year-old female was hospitalized by pedestrians after having what seemed to be a generalized convulsion in the street. After gaining consciousness in the hospital ward, she attacked a hospital nurse when she tried to draw her blood for investigations.

+Hospital security was called to restrain her. All the nurses became very angry and refused to care for her. She was confused and could not identify herself. She also declined to take hospital food because she thought it was poisoned. A psychiatrist was consulted, who diagnosed her as having acute psychosis and ordered injectable antipsychotics to calm her. Her convulsion was dismissed as a functional seizure. The hospital social welfare service was consulted as she had no money to buy medicine. The social welfare department helped her financially and asked for help from the local police department to identify her and find her family members. In-charge physicians contacted hospital administration to arrange a free MRI in the hospital radiology department. MRI revealed no abnormality. Clinicians became more convinced about the psychiatric diagnosis but could not discharge her as she had nowhere to go. While in the hospital, she had another generalized tonic-clonic convulsion. A thorough physical examination this time showed mild ankle edema, BP of 160/100, and some purpuric rash in her body. Bedside urine dipstick testing showed +++ albuminuria.

Police could not identify her; they contacted the local newspaper, which ran a story with her photo, resulting in her identification by her husband. According to the husband, the couple had no living child; she had four first-trimester abortions. She left the house after having a quarrel with her husband and mother-in-law regarding the fertility issue.

Doctors advised ANA, anti-DSDNA, and anti-phospholipid antibodies, and all of them were positive; a diagnosis of SLE with neuropsychiatric lupus with lupus nephritis and antiphospholipid antibody syndrome was made. A multidisciplinary care team involving an internist, rheumatologist, nephrologist, neurologist, obstetrician, psychiatrist, nurses, social welfare worker, and hospital management made a coordinated healthcare decision for her. She recovered well and gave birth to a healthy child three years later.

"Individual commitment to a group effort- that is what makes a team work, a company work, a society work, a civilization work."
- Vince Lombardi

Collaboration may occur at virtually any level of an organizational structure. People can collaborate within an organization, between organizations, between one another, between countries, and between professions (also known as interprofessionalism).

Teamwork	Collaboration
Their actions are independent but they are committed to a goal.	Their actions are interdependent
Teamwork requires leadership, vision and guidance to resolve their conflicts.	Collaboration requires equal Partnership and members can resolve conflicts on their won
Effective over short-term.	Sustainable over the long-term
Key element: control	Key element: Trust

Why is interprofessionalism?

- The World Health Organization defines interprofessionalism as "multiple health workers from different professional backgrounds working together with patients, families, carers (caregivers), and communities to deliver the highest quality of care."
- Interprofessional collaboration is the process of developing and maintaining effective interprofessional working relationships with learners, practitioners, patients/ families, and communities to enable optimal health outcomes.
- Elements of collaboration include respect, trust, shared decision-making, and partnerships.

Why is interprofessionalism necessary?

- No single health profession is capable of meeting all patient needs, so all members of the healthcare team must know how to work together.
- Interprofessional collaboration has become firmly established as an essential component within education and healthcare.
- Interprofessional skills help healthcare workers to have a more patient/family/community-centered focus.
- There is emerging evidence that when interprofessional healthcare teams practice collaboratively, it can enhance the delivery of integrated, person-centered care and lead to improved patient and health system outcomes, i.e., decreasing morbidity and mortality rates, improving patient satisfaction, and improving efficiency in terms of both time and cost.
- Interprofessional education also helps students see healthcare delivery through an interprofessional lens and may lead to the development of high-impact and innovative team capacity-building.
- Teamwork has also been shown to benefit healthcare providers, including reducing extra work and increasing job satisfaction.
- Effective interprofessional communication improves the ability of healthcare teams to deal with conflicting viewpoints and reach reasonable compromises.

- Interprofessionalism is the best way to prepare for a career in the rapidly changing health professions, partly because increasing numbers of providers are shifting to team-based care.
- Therefore, healthcare organizations may benefit from adopting team-based competencies for interprofessional collaboration.

Who are the members of an interprofessional collaboration team?

- All the members of a healthcare organization who are directly or indirectly involved in healthcare delivery are part of the interprofessional collaboration team, including doctors of different disciplines, members of the hospital administration, nurses, physiotherapists, pharmacists, social workers, dieticians, ward boys, cleaners, hospital security, etc.

What is Interprofessional education (IPE)?

- Interprofessional education refers to occasions when students from two or more professions in health and social care learn together during all or part of their professional training to cultivate collaborative practice for providing client- or patient-centered health care.
- Learning in an interprofessional environment better prepares students for working in real healthcare settings.
- Learning from and with peers in other academic disciplines helps students understand the big picture in patient care and improves their communication and problem-solving skills.
- Interprofessional education is one of the innovative approaches that can help improve the quality of the global health workforce.
- Interprofessional education (IPE) is becoming a more common component of medical school curriculums in many parts of the world. Organizations have also used competency frameworks to set performance indicators that can be used to evaluate healthcare professionals' ability to practice collaboratively. We must 'catch on' to prepare our students for the new healthcare delivery concepts.
- Since the mid-1970s, educators, health professionals, healthcare researchers, and policy makers have acknowledged that interprofessional collaborative practices and interprofessional education have the potential to improve healthcare delivery and health outcomes.
- Bangladesh does not currently have a formal interprofessional education framework. Even though we are informally practicing some domains of interprofessional collaboration in a healthcare setting, there is a huge room for improvement.

Key domains of interprofessional collaboration

Several competency frameworks have been developed to train healthcare professionals and promote interprofessional collaboration. While there are a number of existing competency frameworks for interprofessional collaboration, the most widely referenced are framed as a set of individual competencies that define the attributes, knowledge, and skills of individual healthcare professionals that are required for collaborative practice. Six key competency domains of interprofessional collaboration are-

1. Role clarification
2. Patient/family/community-centered care
3. Team functioning
4. Collaborative leadership
5. Interprofessional communication and
6. Interprofessional conflict resolution.

1. Role clarification:

- Role clarification occurs when healthcare workers understand their own role and the roles of others and use this knowledge appropriately to establish and achieve healthcare delivery goals.
- The more clarification of the role, the more likely it is that they will work effectively together as a team.
- Role descriptors help in accessing others' skills and knowledge appropriately through consultation.
- Inadequate role clarification or 'role blurring' may lead to conflict, team dysfunction, and burnout.
- Clear boundaries and role descriptors help the team to focus more on the patient/family/community, thus improving the quality of care.

2. Patient/family/community-centered care:

- In inpatient, family, and community-centered care, the interprofessional team integrates and values the opinion or desire of a patient, family, or community in the design and delivery of healthcare.
- As patients and families are involved in the shared decision-making process, patient satisfaction is more likely and conflict is less likely.
- Appropriate patient/family education about the disease process and lifestyle modification is expected to improve the outcome of treatment.

3. Team functioning:

- Healthcare workers must understand the principles of teamwork dynamics and group/team processes to enable effective interprofessional collaboration.
- They should develop a set of principles for working together, effectively facilitate discussions and interactions among team members, be respectful of all members' participation in collaborative decision-making, establish and maintain effective and healthy working relationships with the team members, and respect team ethics, including confidentiality, justice, resource allocation, and professionalism. Collaboration requires trust, mutual respect, availability, open communication, and attentive listening.
- Remember, respect is a bilateral, two-way process and can only be earned through positive actions and gamesmanship.
- Through periodic team meetings, team members should regularly reflect on their effectiveness in working together and also in achieving the needs of patients/ families.
- Awareness of and commitment to interprofessional ethics unite all team members in the goal of delivering the best possible care to the patients.

4. Collaborative leadership:

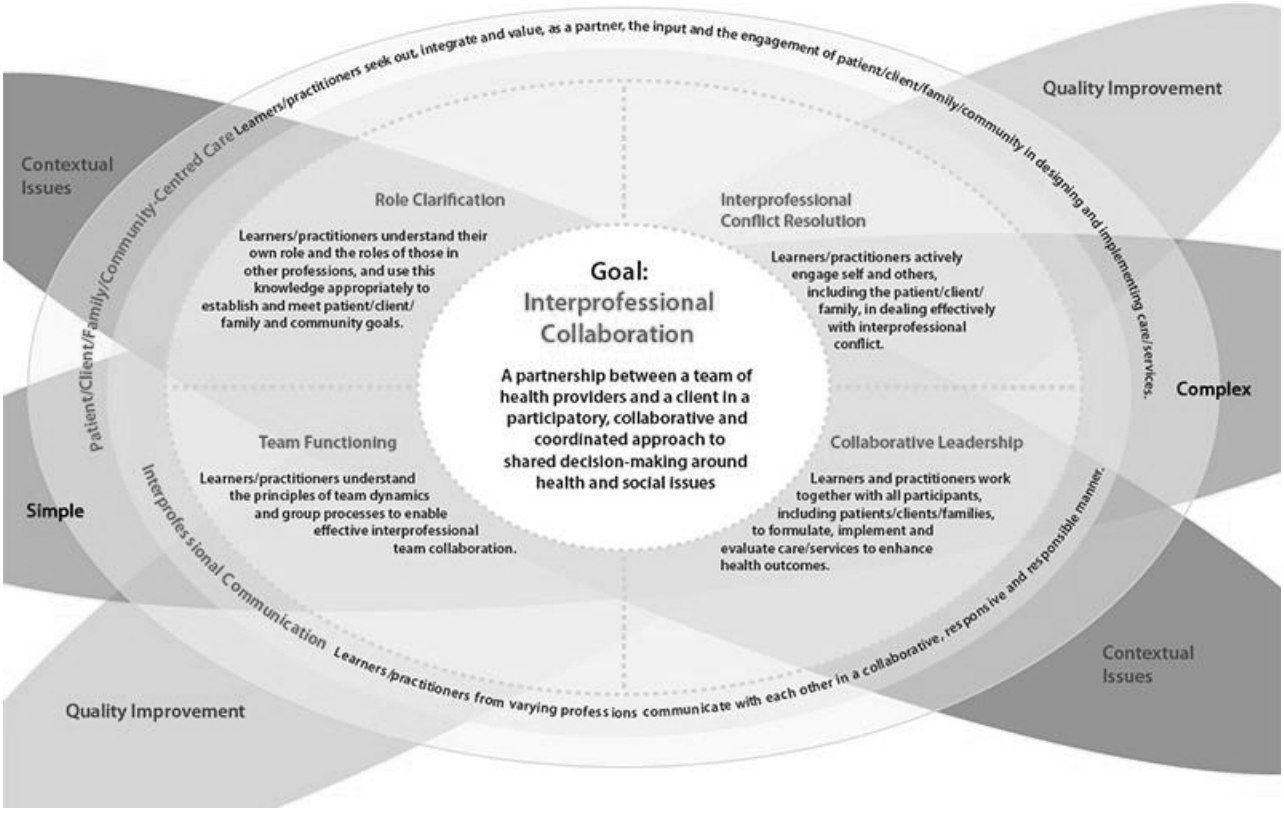
- To support interprofessional collaborative practice, healthcare team members should be able to collaboratively determine who will provide group leadership in any given situation.
- Leaders should collaborate with others to advance interdependent working relationships among all participants, facilitate effective team processes, facilitate effective decision-making, establish a climate for collaborative practice among all participants, and ultimately improve patient outcomes.
- Sometimes, there may be two sequential leaders-one to keep the work flowing (i.e., head of a department/unit) and the other who connects with patients/families in a helping relationship, serving as the link between the team and the patient/family (i.e., Assistant Registrar/ Senior House Officer of a unit).
- Collective leadership takes pressure off any one individual and disperses it throughout the group.

5. Interprofessional communication:

- Communication skills are essential for all healthcare workers and involve the ability to communicate effectively with members from other professions involved in healthcare delivery and patients/families in a collaborative, responsive, and responsible manner.
- To support interprofessional collaborative practice, team members should be able to establish teamwork communication principles, actively listen to other team members & patients/families, to support informed, shared decision-making by the healthcare team and the patients/families, to communicate effectively to ensure common understanding of care decisions, to share responsibilities for care across team members, and to develop trusting relationships with patients/families and other team members.
- Communications in an interprofessional environment are demonstrated through listening and other nonverbal means and verbally through negotiating, consulting, interacting, or discussing.
- Respectful interprofessional communication incorporates full disclosure and transparency in all interactions with other team members, & patients/families.

6. Interprofessional conflict resolution:

- Healthcare workers should actively and respectfully engage other team members and patients/families in case of disagreements.
- To support interprofessional collaborative practice, team members should constructively address conflict.
- For effective interprofessional conflict resolution, team members should:
  - Understand that conflicts can be potentially positive, as it allows us to reflect on what went wrong and how it could have been prevented.
  - Recognize the potential for conflict to occur and take constructive steps to address it.
  - Identify common situations that are likely to lead to disagreements or conflicts, including not knowing about the individual role of the team members, not respecting other team members, and not knowing clearly about the goals of the team.
  - Know and understand strategies to deal with conflict when it occurs.
  - Set guidelines for addressing disagreements effectively.
  - Analyze the causes of conflict and work to reach an acceptable solution.
  - Establish a safe environment in which diverse opinions can be shared without being punished.
  - Develop a level of consensus among those with differing views
  - Allow all members to feel that their thoughts have been heard, irrespective of the final outcome or decision.
  - Avoid egocentricity and abuse of power.



Common barriers to effective teamwork:

- Lack of communication skills
- Differing professional cultures
- Traditional hierarchies and assumed leadership
- 'Role blurring,' confusion over boundaries and responsibilities.
- Rivalry between professions
- Status issue: social hierarchy inhibiting effective interaction and, thus collaboration

Possible methods of teaching interprofessionalism to medical students:

- Team-based learning and flipped classroom method
- Simulation
- Revision and reflection
- Assessment and feedback by the teacher

Conclusion

- When discussing interprofessional collaboration in healthcare, the key issues include putting the patient or community first, the organization second, oneself last, and prejudices aside.
- Interprofessionalism not only improves patient outcomes & patient satisfaction but also helps to reduce conflict and burnout.

- We should have a team-based competency framework to guide students and doctors of the medical colleges of Bangladesh in advancing interprofessional collaboration.

  "If everyone is moving forward together, then success takes care of itself."
  -Henry Ford

Assessment questions:

1. What do you mean by interprofessionalism?
2. What is the importance of interprofessionalism in patient management?
3. How an interprofessional collaboration team can be formed? Who can be the members of interprofessional collaboration team?
4. Mention of the key domains of interprofessional collaboration.
5. What are the common barriers to effective teamwork and how to overcome that?
6. How to develop collaboration leadership?
7. Case scenario:
   A 70-year-old diabetic, hypertensive patient came to hospital with a foot ulcer. He can't afford his medication due to financial issues. His wife was his primary caregiver but recently she had a stroke and currently bed bound. They don't have any children or relatives to take care of them. Regarding the management of this patient-
   a) Who should be included in the interprofessional collaboration team?
   b) Who should take the collaborative leadership?
   c) How the interprofessional collaboration will help in this patient management?

References

1. World Health Organization. Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: World Health Organization; 2010
2. Bosch Brennan et al. Can Pharm J (Ott). 2015 Jul; 148(4): 176–179.
3. Canadian Interprofessional Health Care Collaborative. A national interprofessional competency framework. February 2010. Available: www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf
4. Kumar K, vanDissel HG. Sustainable collaboration: managing conflict in interorganizational systems. Manag Inf Syst Q. 1996;20(3):279-300.
5. Littlechild B, Smith R. A Handbook for Interprofessional Practice in the Human Services: Learning to Work Together. New York, NY: Routledge; 2013.
6. Green BN, Johnson CD. Interprofessional collaboration in research, education, and clinical practice: working together for a better future. J Chiropr Educ. 2015 Mar;29(1):1-10
7. Brandt B, Lutfiyya MN, King JA, Chioreso C. A scoping review of interprofessional collaborative practice and education using the lens of the Triple Aim, Journal of Interprofessional Care. 2014; 28:5: 393-399.
8. Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M. Interprofessional collaboration to improve professional practice and healthcare outcomes. Cochrane Database Syst Rev. 2017;6(6): CD000072.
9. Sangaleti C, Schveitzer MC, Peduzzi M, Zoboli ELCP, Soares CB. Experiences and shared meaning of teamwork and interprofessional collaboration among health care professionals in primary health care settings: a systematic review. JBI Database Syst Rev Implement Rep. 2017;15(11):2723-2788.

Topic 13: Patient safety and medical error

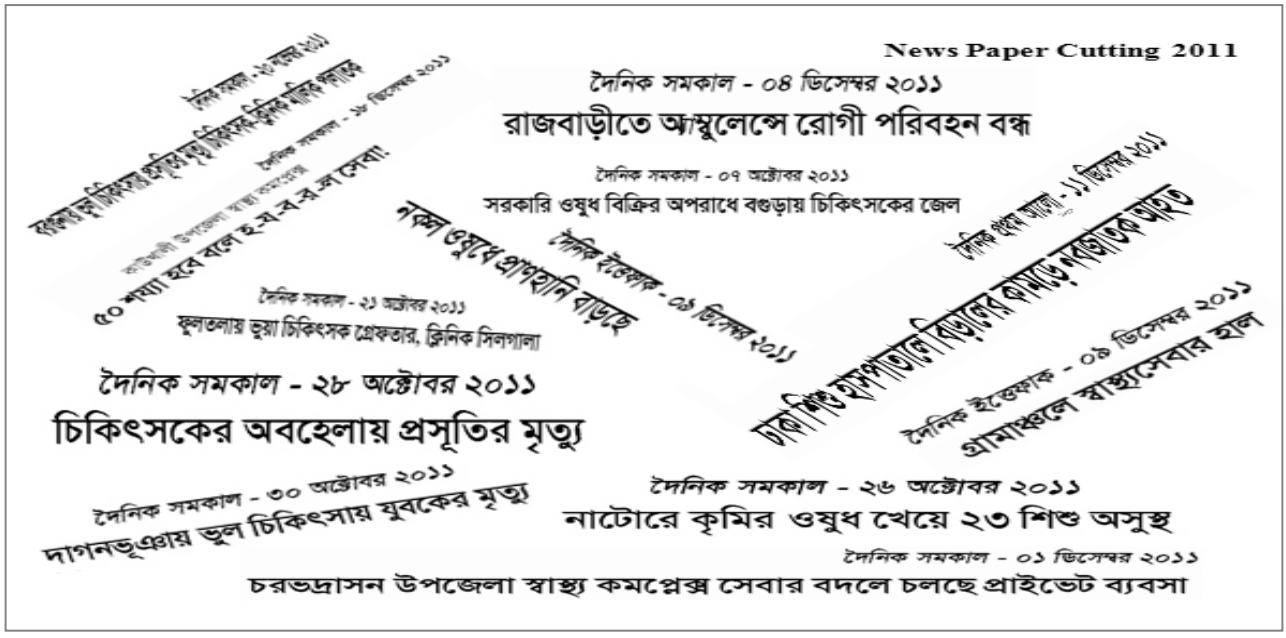
MA Faiz; Hafez Md Nazmul Ahsan

Outline	
Topic	Patient safety and medical error
Learning objective	At the end of the session students will be able to • define patent safety • mention the importance of patients safety • define medical errors and medical negligence. • list common medical errors and medical negligence • explain responsibility of patients safety and rights of a patient • mention the common patient safety issues and goal • explain means of administration of quality to the patient
List of contents	• Definition and importance of patients safety • Definition of common medical errors and medical negligence • Responsibility of patient's safety and rights of a patient • Common patient safety issues and goal • Means of administration of quality to the patient
Method	• Interactive lecture • seminar
Time	One And a half hours

Examples of Issues of 'Patient Safety'

- Wrong labeling of blood sample for cross matching.
- Performing a procedure on a wrong patient e.g. performing proctoscopy on an attendant of a patient while the patient is in the toilet.
- Performing a procedure on wrong site- e.g. aspiration of pleural fluid from right side instead of left side (actual site).
- Wrong Injection to a patient- e.g. instead of giving ceftriaxone injection giving norcourium!
- Wrong labeling a sample- e.g. mistake of bed number and patient name, and specimen name.
- Problem in identification of the newborn baby.
- Writing a wrong drug in prescription.
- Dispensing a wrong drug to a patient e.g. 'Sounds like' drug' Cortan' (steroid) instead of Coartem (ACT antimalarial).
- Receiving a wrong report e.g. excision biopsy from a gallbladder and report with a lymphnode TB from gall bladder.
- Surgery on wrong side e.g left kidney vs right kidney.
- Infusion problem- e.g. wrong rate of quinine drip.
- Infrastructure problem- bed availability.
- Problem with diet- provided diet in a patient on request for FBG.
- Hazardous environment.

- Guidelines not followed or hospital rule not followed- e.g. hand washing.
- Introducing the topic: patient safety
- Present day health care system is complex, effective, and associated with an inherent risk in every point in the process of care. Through a series of coordinated actions, it is possible to prevent harm to patients caused by 'the processes of health care themselves'. By teaching the topic 'patient safety'during medical education our future health professionals will realize that a strengthened health system will be capable to diagnose, treat, cure and care with an aim of 'primum non nocere', first of all do no harm.
- Glimpse of burden: One in ten patients is subject to an adverse event while receiving hospital care in high income countries which may be up to one in four in low- and middle-income countries care is considered as a system wide problem- in primary care, ambulatory care and in hospital. Overall, 60% of deaths in LMICs from conditions amenable to health care are due to unsafe and poor-quality care. In Bangladesh the patient safety topic is often highlighted but true burden is yet to be measured.



Patient safety curriculum guide topics (WHO)

1: What is patient safety

2: What is human factors and why is it important to patient safety?

3: Understanding systems and the impact of complexity on patient care

4: Being an effective team player

5: Understanding and learning from errors

6: Understanding and managing clinical risk

7: Introduction to quality improvement methods

8: Engaging with patients and carers

Introduction to cluster topics 9-11: putting knowledge into practice

9: Minimizing infection through improved infection control

10: Patient safety and invasive procedures

11: Improving medication safety

Due to limitations including time allocated for one session of 1.5 hours it is not expected to cover all topics during the session. Some relevant topics are/will be covered in other parts of the curriculum.

1: What is patient safety (Definition):

Learning objective

The objective of this module is to understand the discipline of patient safety and its role in minimizing the incidence and impact of adverse events and maximizes recovery from them.

What is patient safety?

Patient safety 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 errors less likely and reduce the impact of harm when it does occur."

Importance of patient safety

When culture is mentioned in relation to patient safety, most people's thoughts will turn to the frequently discussed concept of the "no blame" culture in relation to patient safety. Since most mistakes are honest failures provoked by poorly designed systems, to blame and punish an individual is unfair and misguided. A culture that is based on blame and retribution will ultimately be unsafe because individuals will be afraid to admit their mistakes and will instead hide them. Mistakes are opportunities to learn to prevent recurrence in future. If a culture of blame and fear is dominant in a health organization, it is quite impossible to have a meaningful programme of patient safety.

2: What is human factors and why is it important to patient safety?

Learning objective

Understand human factors and its relationship to patient safety.

Human factors ('ergonomics') is the discipline of science and practice concerned with understanding interactions among humans and other elements of a system. They are critical to the design of safe and resilient health care and patient safety systems. The human factors, multidisciplinary, integrative approach looks at the person embedded in a socio technical context, considering health workers in the work environment and the patient on the journey of care. A person may need to take support from different locations and health care professionals.

Essential elements of human factors across all health care contexts: (1) Person-centred approach, (2) Participatory approach,(3) Design-driven approach, (4)Systems approach and (5) Continuous learning and refinement.

The human factors approach takes into account not only the people (health care team) in the system but also the environment, the surroundings and the physical context, as well as the procedures, artefacts,check-list safety checks, teamwork, risks of different interventions, organizational culture and structure, and national policies and regulations.

We have to build high-reliability health systems and health organizations that protects patients daily from harm something similar to high-risk industries accustomed of preventing accidents, harms and mistakes that have serious consequences.

Describe the term high reliability organization (HRO) and understand the elements of a safe health-care system

The term HRO refers to organizations that operate in hazardous conditions but manage to function at a level of hazard that is almost completely "failure free" - that is they have very few adverse events. These are industries such as air traffic control systems, nuclear power plants and naval aircraft carriers. While there are many differences between these industries and healthcare, the message for health care is that it is possible to achieve consistently safe and effective performance despite high levels of complexity and unpredictability in the work environment. HROs demonstrate to health-care organizations that they too can improve safety by focusing on the system.

Characteristics of high-reliability organizations[2]

1. Preoccupation with failure.
2. Reluctance to simplify.
3. Sensitivity to operations.
4. Commitment to resilience.
5. Deference to expertise.

Resilience: It is an organization's capacity and capability to constantly maintain a safe state of operating and to recover quickly and restore the safe state when something go wrong. Also it consistently learn from successes and failures with learning mechanisms responsive to cues from both good and bad. 'Resilience is an amalgam of keeping errors small and allowing continued safe functioning'.

Examples of actions: Promotion and establishment of non-punitive policy for responding to and learning from adverse events and error as well as what goes well; promoting speak-up culture; promoting transparency with patients.

3: Understanding systems and the impact of complexity on patient care:

Learning objective

Understand how systems thinking can improve health care and minimize patient adverse events.

Health care is complex because of

- The diversity of tasks involved in the delivery of patient care;
- The diversity of patients, clinicians and other staff;
- The huge number of relationships between patients, carers, health-care providers, support staff, administrators and community members;
- The vulnerability of patients;
- Variations in physical layout of clinical environments;
- Variability or lack of regulations;
- Implementation of new technology;
- Increased specialization of health-care professionals - while specialization allows a wider range of patient treatments and services, it also provides more opportunity for things to go wrong and errors to be made.

The traditional approach when things go wrong in health care - blame and shame

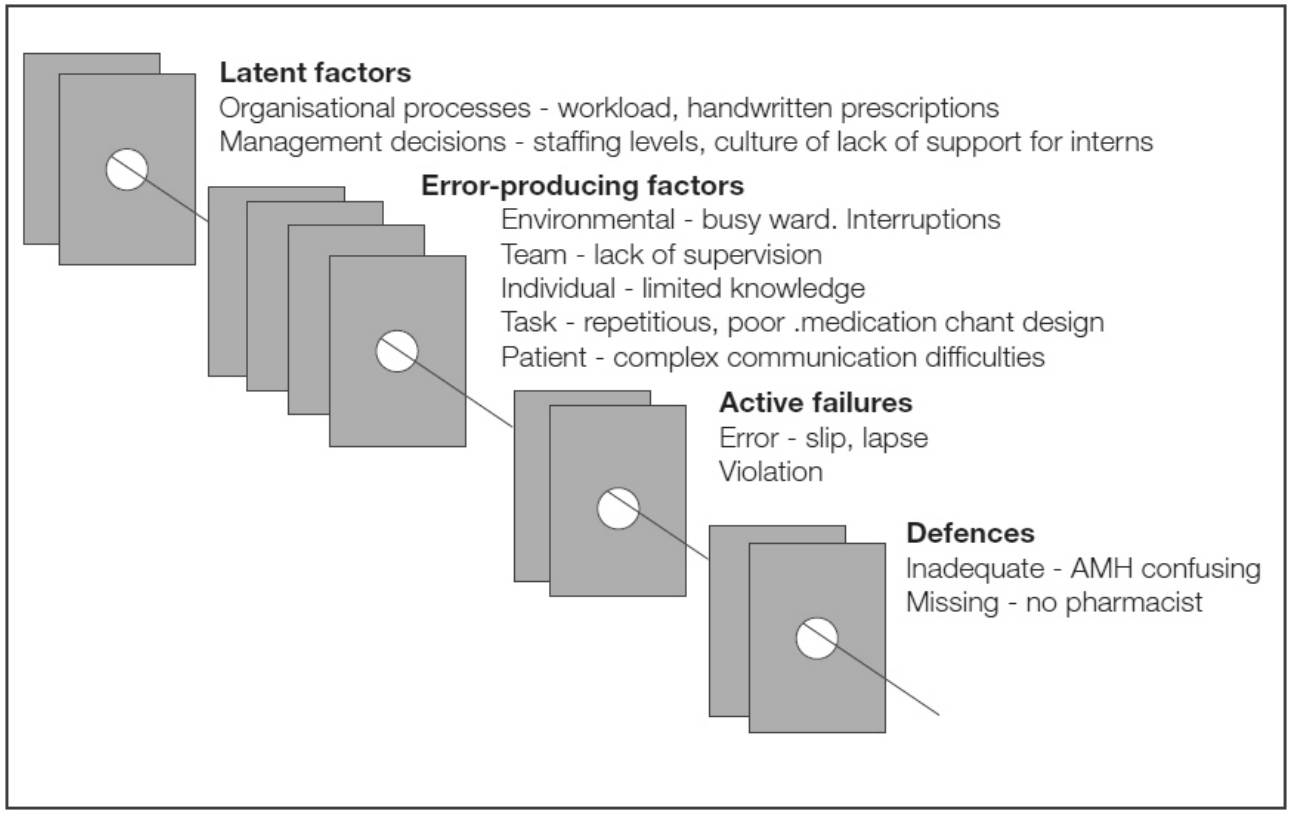
In such a complex environment it is no surprise that many things go wrong on a regular basis. When something does go wrong, the traditional approach is to blame the health-care worker most directly involved in the patient care at the time- often the nurse or junior doctor - example, a wrong drug has been administered by a junior nurse or medical student. While the tendency to blame an individual (the "person approach") is a strong one - and a very natural one - it is unhelpful, and actually counterproductive for a number of reasons.

Whatever role that the "blamed" health-care worker may have had in the evolution of the incident, it is very unlikely that their course of action was deliberate in terms of patient harm (if the action was deliberate this is termed a*violation* - see topic 5 "Understanding and learning from errors" and topic 6 "Understanding and managing clinical risk").

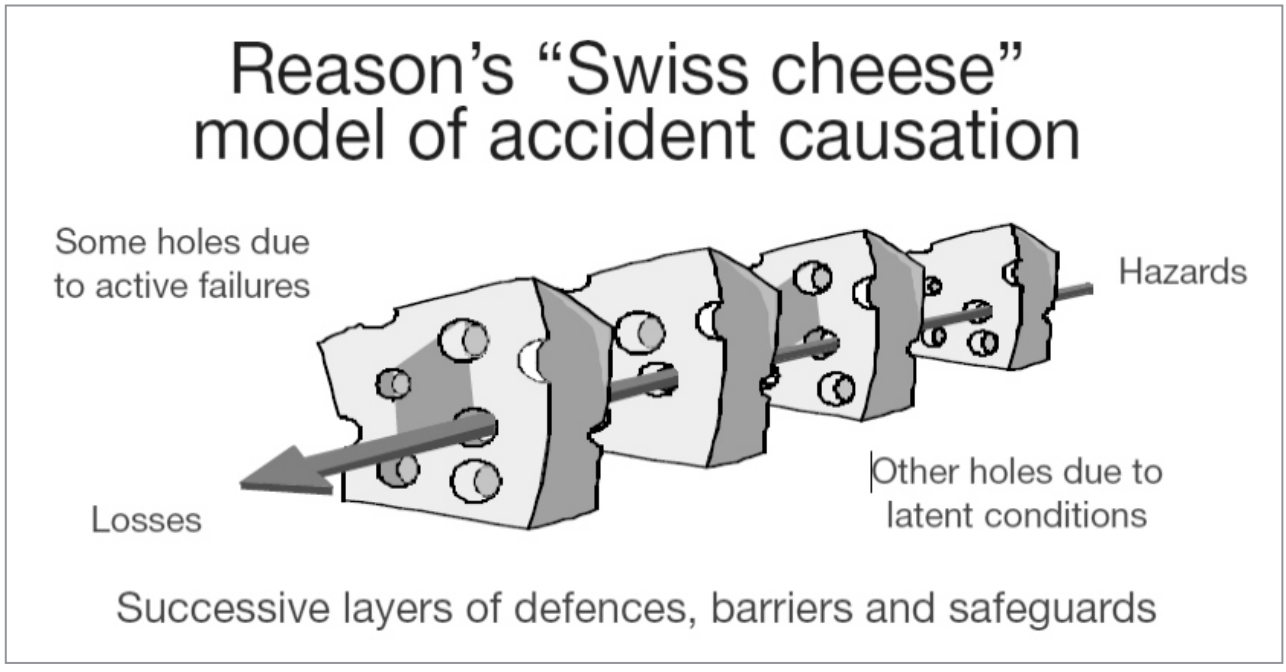
The new approach

1. Patient and provider factors
2. Task factors
3. Technology and tool factors
4. Team factors
5. Environmental factors
6. Organizational factors

The Swiss cheese model



(Source: Coombes ID et al. Why do interns make prescribing errors? A qualitative study, Medical Journal of Australia, 2008, 188(2): 89-94. Adapted from Reason's model of accident causation).



4: Being an effective team player:

Learning objective

- Understand the importance of teamwork in health-care;
- Know how to be an effective team player;
- Recognize you will be a member of a number of health-care teams as a medical students.

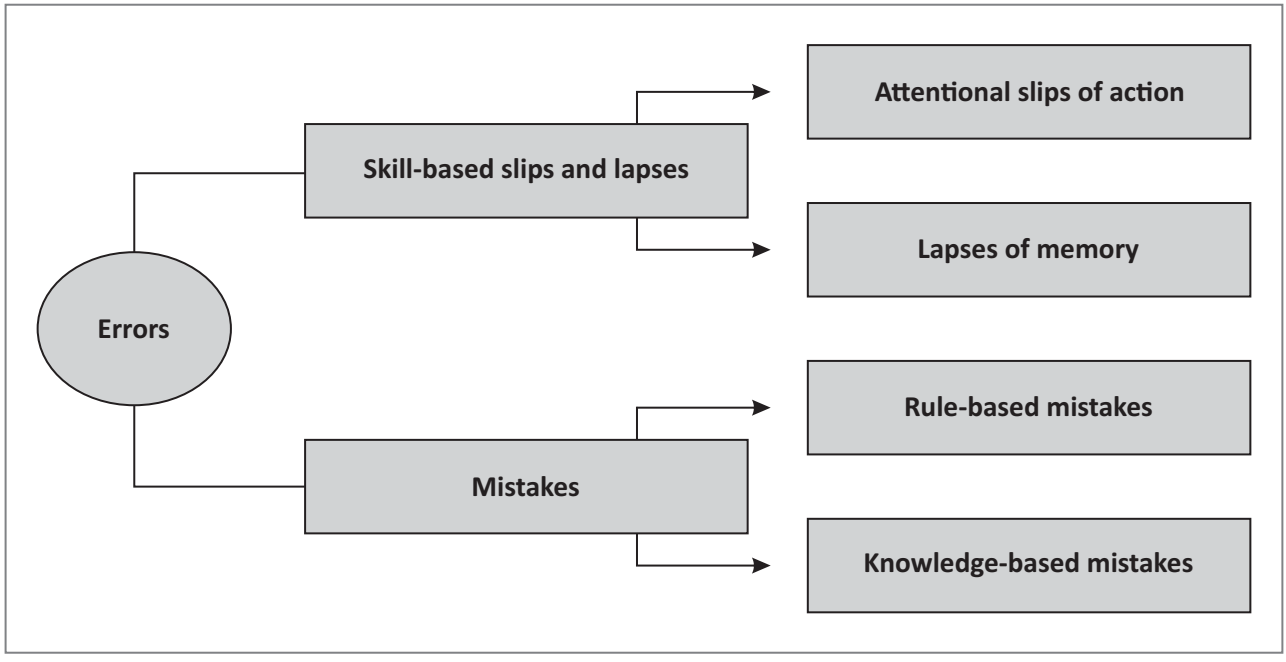
Leadership

- accepting the leadership role;
- calling for help appropriately;
- constantly monitoring the situation;
- setting priorities and making decisions;
- utilizing resources to maximize performance;
- resolving team conflicts;
- balancing the workload within a team;
- delegating tasks or assignments;
- conducting briefs, huddles, debriefs;
- empowering team members to speak freely and ask questions;
- organize improvement activities and training for the team;
- inspire "followers" and maintain a positive group culture.

5: Understanding and learning from errors:

Learning objective

Understand the nature of error and how health care can learn from error to improve patient safety.



(Source: Reason JT. Human error: models and management.British Medical Journal, 2000, 320:768-770).

Figure- 1: Summary of the principal error types

Errors: Failure to carry out a planned action as intended or application of an incorrect plan.

Medical error: An adverse event or near miss that is preventable with the current state of medical knowledge.

The "slip" - if the action is observable - or a "lapse" if it is not. An example of a slip is accidentally pushing the wrong button on a piece of equipment; an example of a lapse is some form of memory failure such as failing to administer a medication.

A mistake is a failure of planning, i.e. the plan is wrong. This can be either rule based, because a "wrong" rule is applied, or knowledge based, because the clinician does not take the correct course of action. An example of a rule-based mistake would be getting the diagnosis wrong and so embarking on an inappropriate treatment plan. Knowledge-based mistakes tend to occur when clinicians are confronted with what is for them a "new" clinical situation.

Slips, lapses and mistakes are all serious and can potentially harm patients, though again it all depends on the context in which the error occurs.

6: Understanding the clinical risk:

Learning objective

Know the principle types of clinical risk in health care

The health system should assure the safety of every clinical process when a patient seek help for advice, investigation, diagnosis, treatment and rehabilitation. Examples of patient safety incidents are given below (Table: 1).

Table 1: Types of issues identified by incident monitoring

Type of incident	% of reportsa
Falls	29
Injuries other than falls (e.g. burns, pressure injuries, physical assault, self-harm)	13
Medication errors (e.g. omission, overdose, underdose, wrong route, wrong medication)	12
Clinical process problems (e.g. wrong diagnosis, inappropriate treatment, poor care)	10
Equipment problems (e.g. unavailable, inappropriate, poor design, misuse, failure, malfunction)	8
Documentation problems (e.g. inadequate, incorrect, not completed, out of date, unclear)	8
Hazardous environment (e.g. contamination, inadequate cleaning or sterilization)	7
Inadequate resources (e.g. staff absent, unavailable, inexperienced, poor orientation)	5
Logistic problems (e.g. problems with admission, treatment, transport, response to emergency)	4
Administrative problems (e.g. inadequate supervision, lack of resource, poor management decisions)	2
Infusion problems (e.g. omission, wrong rate)	1
Infrastructure problems (e.g. power failure, insufficient beds)	1
Nutrition problems (e.g. fed when fasting, wrong food, food contaminated, problems when ordering)	1
Colloid or blood product problems (e.g. omission, underdose, overdose, storage problems)	1
Oxygen problems (e.g. omission, overdose, underdose, premature cessation, failure of supply)	1
More than one type of incident may be assigned to a report. (Source: Runciman B et al. Safety and ethics in health care: a guide to getting it right, 1st ed. Aldershot, UK, Ashgate Publishing Ltd, 2007).	

Note: In many LMIC settings sometimes bare minimum to complete clinical work to basic standard is not available not to speak about the tasks taking safety account. The checklist based tasks of the high income settings may be considered at the same time basic elements be ensured to provide safe care (running water and soap, sterilized instruments, support for repair/maintenance of instruments, maintain infrastructure, electricity, effective clinical waste disposal system, good supply chain and storage of medicine, maintenance of devices, fire safety measures, housekeeping, security- all are potential source of harm).

Topic 7: Introduction to quality improvement methods:

Learning objective

The objectives of this topic are to understand the principles of quality improvement and to introduce students to the basics for improving the quality of health care.

Principle: Health care means quality care. All citizens receive care that is 'safe, effective, patient centered, timely, efficient and effective'

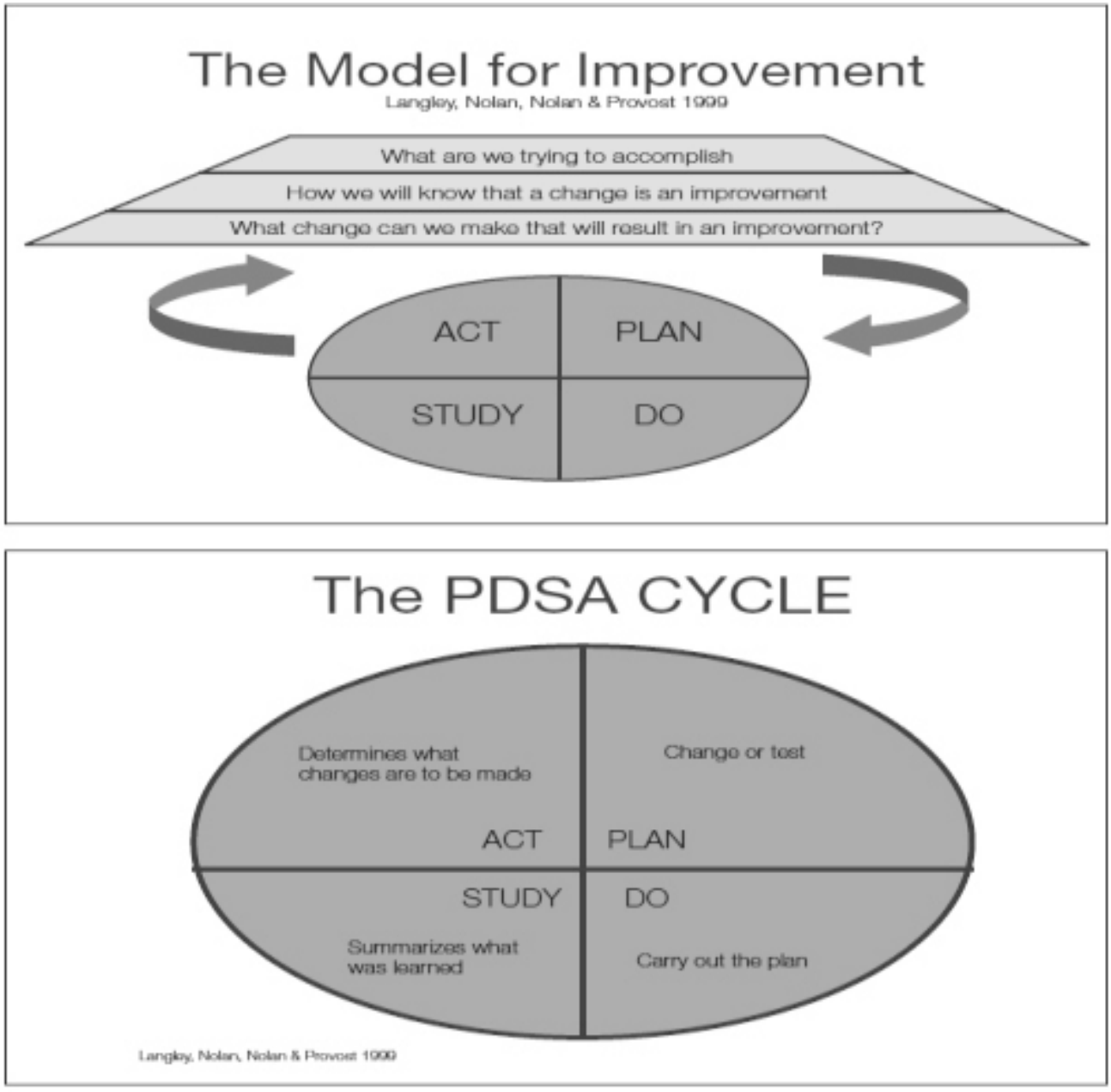


Figure- 2: Model for improvement

Dimensions/Components of Quality in Heath Services:

- **Quality Heath Service** has several parts. For improvement in quality of care, we need to understand them, in following usual order.
  - Availability & Appropriateness
  - Access & Affordability
  - Equity & Equality
  - Technical Competence & Skills
  - Timeliness & Continuity
  - Safety & Reliability

- Respect & Caring (interpersonal relations)
- Efficiency
- Effectiveness & Efficacy
- Amenities

Topic 8: Engaging with patients and carers (Introduction to cluster topics 9-11: putting knowledge into practice) (also covered in communication skills):

Learning objective

The objective of this topic is to understand the ways in which patients and carers can be involved as partners in health care, both in preventing harm and learning and healing from an adverse event.
Engage and empower patients and families to help and support the journey to safer health care.
Given proper information, the patient and family can help to be the eyes and ears of the system.

What students need to do (performance requirements)

Students need to:

- actively encourage patients and carers to share information;
- show empathy, honesty and respect for patients and carers;
- communicate effectively;
- obtain informed consent;
- show respect for each patient's differences, religious and cultural beliefs, and individual needs;
- describe and understand the basic steps in an open disclosure process;
- apply patient engagement thinking in all clinical activities;
- demonstrate ability to recognize the place of patient and carer engagement in good clinical management.

What students need to do (performance requirements)

- actively encourage patients and carers to share information;
- show empathy, honesty and respect for patients and carers;
- communicate effectively;
- obtain informed consent in an appropriate manner;
- show respect for each patient's differences, religious and cultural beliefs and individual needs;
- describe and understands the basic steps inan open disclosure process;
- apply patient engagement thinking in all clinical activities;
- demonstrate ability to recognize the place of patient and carer engagement in good clinical management.

The Harvard framework for disclosure

1. Preparing:
   - review the facts;
   - identify and involve the appropriate participants;
   - use an appropriate setting.
2. Initiating conversation:
   - determine patient and family readiness to participate;
   - assess the patient and family's medical literacy and ability to understand;
   - determine the patient and family's level of medical understanding in general.

3. Presenting the facts:
   - simple description of what happened:
     - no medical jargon;
     - speak slowly;
     - be aware of body language;
   - do not overwhelm with information or oversimplify;
   - explain what is known of the outcome at that point;
   - describe the next steps;
   - sincerely acknowledge the patient's and family's suffering.

4. Actively listening:
   - allow ample time for questions;
   - do not monopolize the conversation;

5. Acknowledging what you have heard.

6. Responding to any questions.

7. Concluding the conversation:
- summarize;
- repeat key questions raised;
- establish the follow-up.

8. Documentation:
- describe the event;
- describe the discussion.

Topic 9: Minimizing infection through improved infection control:

Learning objective:

The objective of this topic is to demonstrate the devastating effects of inadequate infection control and to show students know they can minimize the risks of contamination. (Microbiology teaching)

Topic 10: Patient safety and invasive procedures (Mostly to be covered during surgery and OT placements):

Learning objective:

The objective of this topic is to understand the main causes of adverse events in surgical and invasive procedural care and how the use of guidelines and verification processes can facilitate the correct patient receiving the correct procedure at the appropriate time and place.

Topic 11: Improving medication safety (Also to be covered in Pharmacology):

Learning objectives

- To provide an overview of medication safety;
- To encourage students to continue to learn and practice ways to improve the safety of medication use.

Definitions

1. Side-effect
2. Adverse reaction
3. Error
4. Adverse event
5. Adverse drug event
6. Medication error
   May result in:
   - an adverse event if a patient is harmed;
   - a near miss if a patient is nearly harmed;
   - neither harm nor potential for harm.

Understand the scale of medication error

Medication error is a common cause of preventable patient harm.

Understand that using medications has associated risks Prescribing

Sources of error in prescribing:

- Inadequate knowledge about drug indications, contraindications and drug interactions. This has become an increasing problem as the number of medicines in use has increased. It is not possible for a doctor to remember all the relevant details necessary for safe prescribing. Alternative ways of accessing drug information are required.
- Not considering individual patient factors that would alter prescribing such as allergies, pregnancy, co-morbidities like renal impairment and other medications the patient may be taking.
- Prescribing for the wrong patient, prescribing the wrong dose, prescribing the wrong drug, prescribing the wrong route or the wrong time. These errors can sometimes occur due to lack of knowledge, but more commonly are a result of a “silly mistake” or “simple mistake”, referred to as a slip or a lapse.

  These are the sorts of errors that are more likely to occur at 04:00, or if the doctor is rushing or bored and not concentrating on the task at hand.
- Inadequate communication can result in prescribing errors. Communication that is ambiguous can be misinterpreted. This maybe a result of illegible writing or simple misunderstanding in verbal communication.
- Mathematical error when calculating dosescan cause errors. This can be a result of carelessness, but could also be due to lack of training and unfamiliarity with how to manipulate volumes, amounts,concentrations and units. Calculation errors involving medications with narrow therapeutic window can cause major adverse events. Not uncommonly, a calculation error can occur when transposing units (e.g. from microgramsto milligrams) and may result in a 1000 times error. Competence with dose calculations is particularly important in paediatrics where most doses are determined according to the weight of the child.

Administration:

Types of administration errors:

- Classic administration errors are a drug being given to the wrong patient, by the wrong route, at the wrong time, in the wrong dose or the wrong drug used. Not giving a prescribed drug is another form of administration error.

- These errors can result from inadequate communication, slips or lapses, lack of checking procedures, lack of vigilance,calculation errors and suboptimal work place and medication packaging design. There is often a combination of contributory factors.
- Inadequate documentation. For example, if a medication is administered but has not been recorded as being given, another staff member may also give the patient the medication thinking that it had not yet been administered.

Health worker education, skill and safety

Inspire, educate, skill and protect health workers to contribute to the design and delivery of safe care systems.

There are barriers in adding patient safety in curriculum including lack of curricular space.

Medical professionals are doing multi tasking and overloaded with pressure in such a situation patient safety can be integrated into their practice.

"Health worker safety and patient safety are inseparably interconnected practice domains. Health and safety risks to health workers can lead to risks for patients, patient harm and adverse patient outcomes. Violence against health workers, burnout and musculoskeletal disorders are all widespread occupational health problems in strained health care facilities, many of which also face acute shortages of competent health workers. Health worker absenteeism and attrition, resulting in suboptimal care outcomes, are aggravated by poor physical and mental health of health workers. Physically and psychologically sound health workers are less prone to make errors, contributing to safer care. The safety of health workers therefore directly impacts the safety of patients. The safety of health workers therefore directly impacts the safety of patients".

Annex:

Table 1: Framework for managing conflicts in medical situations

Area or attribute	Examples	Old way	New way
Paternalism consent	Student asked to get consent from a patient for a surgical procedure the student has never heard of before	Accept task, do not let senior staff know level of ignorance about procedure, talk to the patient about the procedure in a vague and superficial way so as to get the patient's signature on the consent form	Decline the task and suggest that a doctor with some familiarity with the procedure would be more appropriate for this task. Accept the task, but explain you know little about the procedure so will need some teaching about it first and request that one of the doctors comes along to help/supervise.
Infallibility of doctors; attitude to mistakes	Mistakes are only made by people who are incompetent or unethical. Good doctors do not make mistakes.	Accept the culture that says doctors who make mistakes are 'bad' or 'incompetent.' Try harder to avoid making a mistake. Remain silent, or find someone or something else to blame when you have made a mistake. Look at the mistakes others make and tell yourself you wouldn't be that stupid.	Understand that everyone will make mistakes at some time and that the causes of errors are multifactorial involving latent factors not immediately obvious at the time the error was made. Look after your patients, yourself and your colleagues in the event of an error and actively promote learning from error.
Walton M et. al (2010). Qual Saf Health Care;19:542e546			

Table 2: Application of correct patient identification principles across disciplines

Discipline	Patient safety application
Obstetrics	How are newborn babies identified as belonging to their mother so that babies are not accidentally mixed up and leave hospital with the wrong parent (s)?
Surgery	If a patient needs a blood transfusion, what checking processes are in place to ensure they receive the correct blood type?
Ethics	How are patients encouraged to speak up if they do not understand why the doctor is doing something to them that they were not expecting?
Walton M et. al (2010). Qual Saf Health Care;19:542e546	

Table 3: Examples of integration areas for Curriculum Guide topics

Curriculum guide topic	Potential subject areas for integration
Minimising infection through improved infection control (Topic 9)	Microbiology Procedural skill training Infectious diseases Clinical placements
Improving medication safety (Topic 11)	Pharmacology Therapeutics Clinical placements
What is patient safety? (Topic 1)	Ethics Introduction to the clinical environment Clinical and procedural skills training
Walton M et. al (2010). Qual Saf Health Care;19:542e546	

Table 4: Example of incorporating patient safety learning into problem based learning cases

Curriculum guide topic	Potential subject areas for integration
Trigger	James is a 15-year-old boy. He arrives at the hospital from a local clinic with noisy breathing and an itch. James' father reports he was fine 30 min earlier and suddenly became unwell. On examination, James looks distressed and nervous; he has a puffy face, enlarged lips, swollen eyes and red blotches on his skin.
Additional information	The father tells you James was like this once before after having penicillin; he says James was told not to take the drug again. James had seen a doctor earlier today for a runny nose, sore throat and fever, and was prescribed amoxicillin. James' father is worried his son might be allergic to this new medication.
Additional discussion questions	- How might James been given amoxicillin when he has a known allergy to penicillin? - Why was James prescribed an antibiotic when the most likely cause of his symptoms is a viral upper respiratory tract infection? - This problem was preventable; has someone made a mistake? - How can this be prevented? - What is the doctor's role; what is the patient's role?
Additional learning objectives	- List a doctor's responsibilities when prescribing medication - List strategies to minimise patients being given the wrong medications that might harm them
Walton M et. al (2010). Qual Saf Health Care;19:542e546	

References

1. WHO (2009). WHO Patient Safety Curriculum Guide for Medical Schools.
2. WHO (2021). Global Patient Safety Action Plan 2021-2030: Towards eliminating avoidable harm in health care
3. DGHS (2024). Training Module on Patient Safety (For Doctor & Nurses).

Topic 14: Career Planning In Medical Science-Bangladesh Perspective

Shahena Akter, Fahmida Rashid

Outline	
Topic	**Career Planning In Medical Science-Bangladesh Perspective**
Learning objectives	At the end of the session, students will be able to • define carrier planning • list carrier options for medical graduates in the country • list carrier options for medical graduates internationally • mention the strategies to choose the best career for you as a doctor
List of contents	• definition of carrier planning • Carrier options for medical graduates in the country • Carrier options for medical graduates internationally • Strategies to choose the best carrier for you as a doctor
Method	• Interactive lecture • Seminar
Time	• One and a half hour

Introduction

"Career planning is concerned with identifying personnel today and preparing them by training for the future vacancies that are likely to arise".

"It is the process of setting one's career goals and determining the course of action of career paths to achieve these goals, keeping in view one's strengths and weakness."

According to Schermerhorn, Hunt, and Osborn, 'Career planning is a process of systematically matching career goals and individual capabilities with opportunities for their fulfilment'.

Career planning is the process of enhancing an employee's future value. It lays out the career ladder, which is the vertical movement of an employee's career path.

A career plan is an individual's choice of occupation, organisation, and career path. The organization helps the employee in this respect as it derives many benefits from it.

Aim of Carrier Planning

1. To motivate people to investigate and acquire data so they can become more competent and able to synthesise, make choices, establish objectives, and act.
2. To assist in human resource development so that workers can devise work-life balance plans.
3. To help staff members better align their own objectives with the chances that the company can actually offer them.

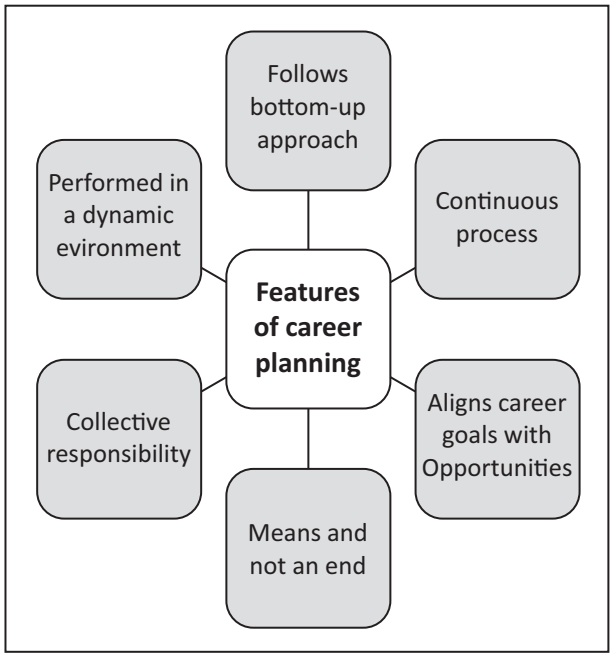
Need/Objectives of Career Planning

1. Workforce stability2. Fixing the incorrect positioning
3. Getting workers ready for a raise

4. Getting workers ready for obstacles
5. To draw in qualified individuals
6. To make use of the managerial reserves
7. To boost morale and motivation
8. To ascertain the function of workers
9. Fulfill organizational goals

Features of Career Planning

1. The organizing process is continuous.
2. Its focus is on finding workers and training them for roles that need more responsibility.
3. It assists people in acquiring the skills necessary to perform various employment positions.
4. It improves organizational work-related operations.
5. It satisfies their hopes for further advancement.
6. Provide expert guidance via training programs, counseling centers, etc.
7. It seeks to accomplish both the organization's and employees' goals.



Pre-requisites of Success of Career Planning

1. Top management's dedication
2. Gradual development
3. Clearly defined professional objectives
4. Faithful and diligent workers
5. Scientific hiring.
6. Proper age composition of employees
7. Measures to lessen career stress
8. Opportunities for promotion
9. Promotion of programs for career planning

Career Planning Model:

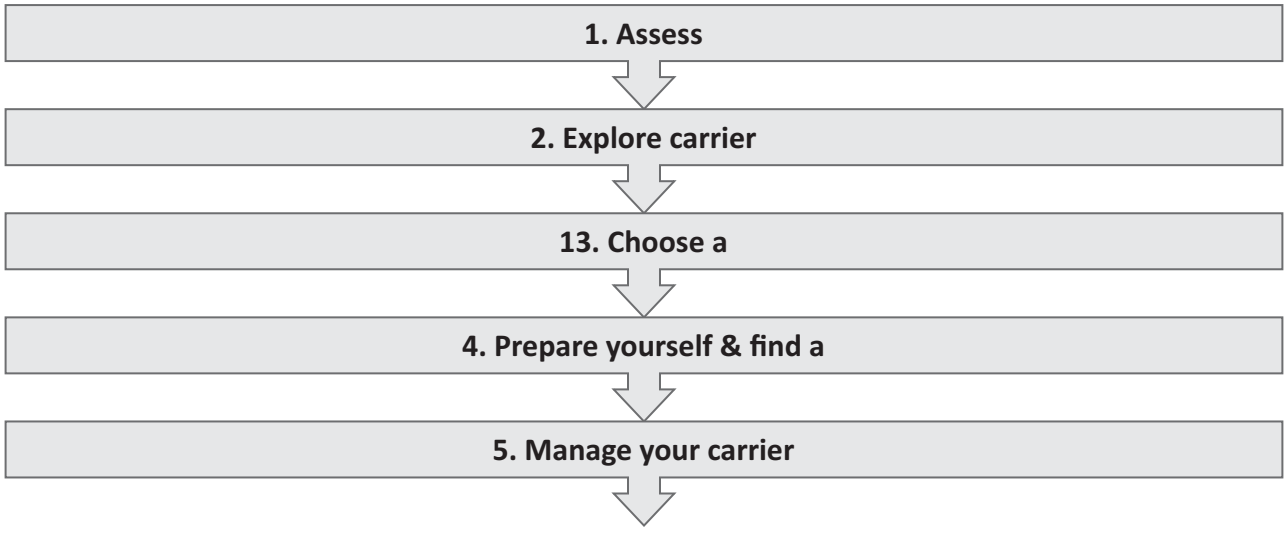


Fig: Career One Stop. US Department of Labour, Employment & Training Administration, 2008 Career Planning In Medical

Science

The most sought-after job choice is MBBS because it's a field with constant demand. While some MBBS graduates choose to begin working as hospital duty doctors, the majority of them would choose to pursue postgraduate training in a speciality of their choice. Postgraduate studies are the most popular option for individuals who have completed their MBBS, but there are only a limited number of PG seats available, and the admissions procedure is time-consuming, from entrance exams to college acceptance. When it comes to determining their post-MBBS job path, each person is free to make their own decisions.

Whether they are medical students, residents, fellows, or early, middle, or late-stage practitioners, doctors, students, and trainees are reevaluating their career goals now more than ever. They don't know if working for the government or in private practice is still an option.

They don't know which expertise is appropriate for them. They're not sure if they should pursue further training and education, such as an MBA, MPH, or MHA. They're not sure if and how to pursue a job that isn't in medicine. They don't know how to save for retirement or a different kind of work, like becoming entrepreneurs, or how to deal with the social and economic fallout from their ever-growing student loan debt.

In the past, choosing to attend medical school and pursue a career as a practising physician, if that was your choice, was a clear, well-scripted decision marked by several years of study

without any noticeable breaks. Currently, the healthcare system is so full of unpredictability, complexity, ambiguity, and volatility that doctors want a better strategy to get them through the rough patches.

Process of Carrier Planning

Understand yourself:

– What are your interests?
– What do you want to be?
– What are your skills?
–What types of careers fit your skills and interests?

– How do you prepare for the career?Interest/ Explore Options:
- What are your interests?
– What do you like to do? Think about experiences you have enjoyed thinking about.
– Make a list of 3 fields for yourself
– Evaluate those interests.
– Think about which field you like. What challenges did the field offer? What skills do you need to develop further to continue in that field?

Goal/Choose your Specialty

What is your Goal? A goal helps you focus on what you want to choose among the fields you are interested in. And think strategically about the promotion in that field.

Skills:

– What are your skills?
Evaluate your self for your skills.
– Make a list of your skills in relation to the field of medicine, like your better hand/eye coordination, your thinking, or your being more talkative.
– After you have assessed your interests and skills, determine the relationship between skills and interests and possible careers.
– Types of careers are very much dependent on your skills and interests

Carrier & Skills:

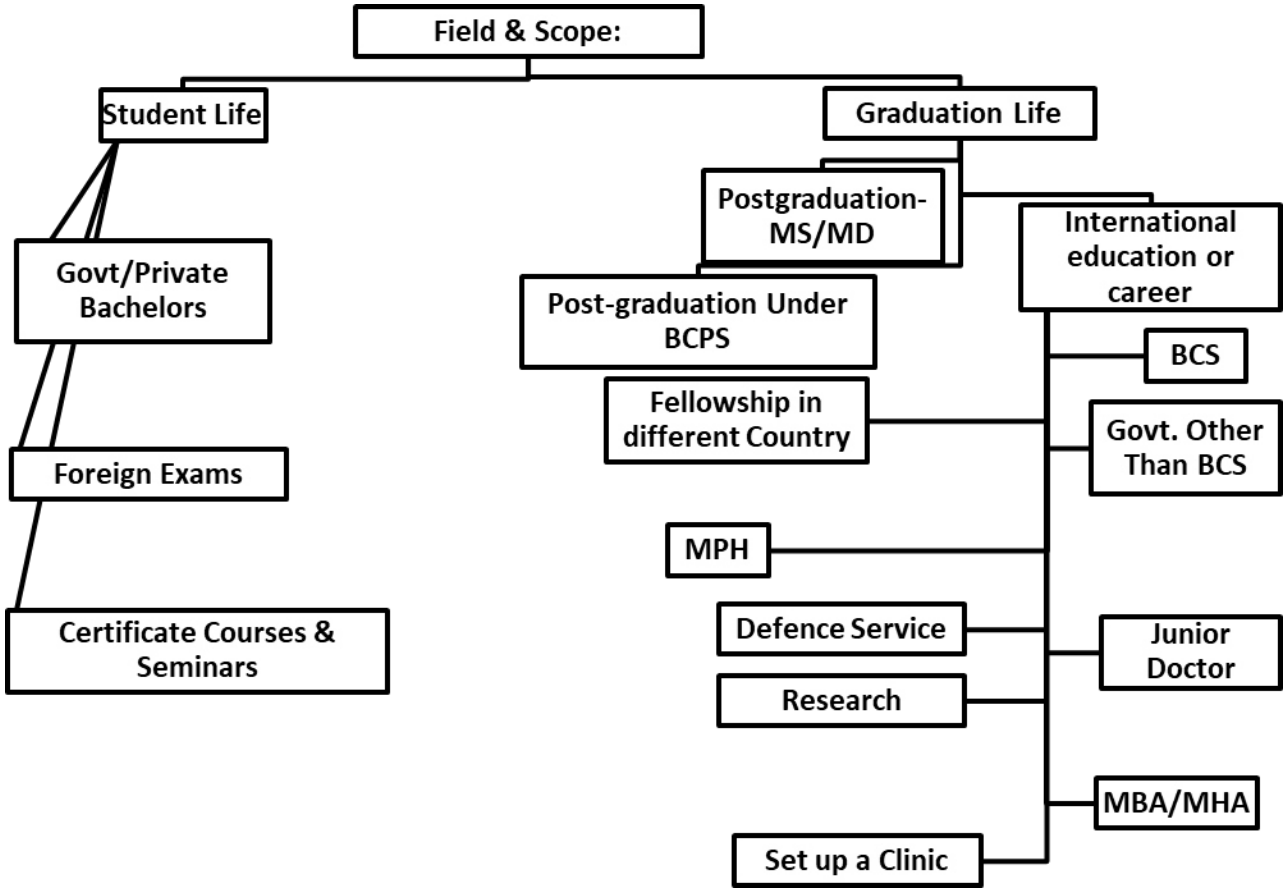
– What types of careers fit your skills and interests?
– Evaluating skills with interest helps a lot in the selection of fields like
  • Good hand/eye coordination with likings of being a clinician makes you a better Surgeon
  • A good talkative nature with the ability to hear people makes you a good Psychiatrist. Preparation:

How do you prepare for a field?

– Selection of the field
– Knowing its pre-requisites
– Knowing the books needed for it.
– Knowing where the course is conducted

Pre-requisite:

What are the prerequisites for your field?



Student Life:

1. **Govt & Private Bachelor (MBBS/BDS)**

   Currently, there are 37 public medical colleges, which provide 5380 seats every year for students undertaking MBBS. According to DGME data, there are 66 approved private medical colleges in the country, which have 6,208 seats. Of these, 3,332 seats are for domestic students and 2,551 for foreigners.

2. **Foreign Exams**

   Only USMLE can be attempted in student life and has its Merits/Demerits

   - *Merits*
     - Step 1 (Basic Knowledge) can be attempted after 3rd Year MBBS.
     - Step 2 (CK) can be attempted soon after the Final Year MBBS exam, and for Step 2 (CS), you can go to the US without a House Job.
     - US players should start studying for steps in their MBBS life through Kaplan series books and other videos
     - No restriction to give Step 1 first or Step 2 (CK); a prepared part of the step can be given at any time.
   - **Demerits**: Expensive & time-wasting if the US is not in goals.

3. Certificate Courses & Seminars- has its Merits/Demerits

- *Merits*
  - It enhances your capability to learn new things.
  - It grooms you, polishes you & shapes you in a born leader.
  - Stage speaking and vital sides like Research Certificate courses improve your skills.
- *Demerits*
  - Deviation from major Field.– Waste of time, resources and energy.

4 Major Divisions:

Graduation life

1. *Postgraduation under BSMMU/Medical University/Institute*

   Almost everyone selects a post-graduation degree as their top option after MBBS. The great majority of graduates decide to specialize in a particular field to acquire in-depth expertise in it. To be admitted to the postgraduate program, one must take the PG exam. All available seats, including the combined MD, MS, and Diploma seats, are listed.

2. *Post-graduation Under BCPS (FCPS & MCPS)*

   An MD or MS is equivalent to a fellowship (FCPS) from the Bangladesh College of Physicians and Surgeons (BCPS). After 1) Passing the MBBS/BDS exam and 2) Completely registering with BMDC, one is eligible to take the FCPS entrance exam. One can select the speciality for which they wish to appear in the course, which consists of five and a half years of resident training.

   For sixteen subjects, a BCPS membership (MCPS) may be applied for. The requirements for eligibility are: i) Candidates must finish their MBBS/BDS program at least five years later. ii) Two years of training in the relevant field in a hospital or institute approved by BCPS. Alternatively, candidates who have passed the MD/MS program at BSMMU, Dhaka University, Chittagong University, or Rajshahi University may sit for the applicable MCPS exams. C. Candidates will be able to take the applicable MCPS tests if they pass the Diploma and have completed two years of in-house training at BSMMU.

3. *International education or career option*

   Some people want to practice overseas after MBBS. In these situations, one must apply for and be accepted into a residence program in that nation and appear for an eligibility examination there. It's also important to remember that people with postgraduate degrees are given greater consideration in these circumstances. Even if one plans to pursue an MS, MPH, or MD abroad, they still need to take eligibility exams and university entrance exams.

4. *Master's program in public health (MPH)*

   In addition to earning a postgraduate degree, one may choose to pursue research following the PG or a master's in public health to work as a public health physician or strategist.

5. *Fellowship courses in different Country*

   Fellowship courses assist you in advancing your knowledge and abilities and are similar to an addition to your current practice or degree. Unlike traditional postgraduate courses, fellowships can be completed in as little as a year or two. Online fellowship courses in medical areas are now possible because to technological advancements. However, a mandatory clinical rotation is included in several of these courses to help students gain the clinical experience needed for the sector. However, a doctor who completes a fellowship in a particular subject is referred to as a fellow rather than a specialist. The benefit of being trained by and developed by an expert in that profession is another.

6. *Government Service other than BCS Health:*
   The government employs medical officers for the Adhoc, Family Planning, Railways, Police, Ministry, Port, and City Corporations. After being selected, the candidate will serve as an administrative or medical civil servant for the state government.

7. *Defense services jobs*
   One of your options after earning your MBBS is to enlist in the military. Jobs for these positions are often posted when they become available. Prospective members of the Army, navy, or Air Force must pass a physical examination and an interview process before being assigned. You might be assigned to infantry units, army hospitals, or emergency services while on duty.

8. *Work as a junior doctor or duty doctor*
   Speciality physicians are in constant demand, but MBBS grads are also frequently contacted. Even without a speciality, one can find employment at private hospital firms.

   Generally, jobs like resident medical officer or assistant medical officer are awarded to non-specialist doctors. Hospitals: Due to a continuing need for more doctors on staff, hospitals frequently post openings for junior and senior residents in the newspapers.

9. *Government medical officers (BCS Health)*
   To fill positions as medical officers in the health service sector in different parts of Bangladesh, BCS, through the Public Service Commission (PSC), conducts an entrance exam for medical services. Physicians hired for these positions are typically assigned to PHCs and CHCs in either urban or rural areas.

10. *MBA in Hospital Administration or Healthcare Management*
    With the exception of being entirely focused on the medical field, medical MBA courses are the same as those in other MBA programs. There are three categories of MBA degrees: Medical Management, Healthcare Management, and Health Administration. Hospital administration, healthcare management, operational management, financial management, and other relatedCandidates are taught subjects. This route can lead to jobs in pharmaceutical businesses, health insurance companies, and even hospital administration.

11. *Medical Research and Academia*
    Research is the ultimate professional ambition for many students. A residency or practice is usually required for clinical research, and several organisations, including the BMRC and NIPSOM, offer research programs. Students can pursue an MD or MPH in Preventive and Social Medicine, which can both lead to practical research experience, primarily through collaboration with WHO or other NGOs.

    In the sphere of medicine, academics and medical research are essential. Studying MBBS in Bangladesh offers fantastic prospects for those who want to work in academia and medical research. Here are some important things to think about:

    Opportunities for research: Students pursuing an MBBS in Bangladesh have many options for conducting research. Universities and medical facilities across the nation actively participate in research initiatives, enabling students to further the field of medicine.

    Academic partnerships:

    Bangladesh has forged partnerships with globally recognised research centres and universities. As a result, students have the chance to take part in collaborative research projects and exchange programs, giving them access to a worldwide viewpoint on medical research.

Access to resources:
Bangladeshi universities have well-equipped research centers, libraries, and labs. These cutting edge facilities give students the tools they need to do research and advance their knowledge in a range of medical science fields.

Publications and conferences:
Bangladeshi medical students can share their research findings at domestic and foreign conferences. They can grow their network within the medical research community and receive recognition for their efforts.

Mentoring and guidance:
Aspiring medical researchers in Bangladesh can receive mentorship and advice from professors and seasoned researchers in the field. In addition to offering insightful advice to help students succeed in their academic and research activities, they actively encourage students to follow their research interests.

12. *Set up a clinic*
You have the option of starting your clinic alone or with the assistance of other experts. This solution's scope is restricted because it requires a sizable upfront payment. You can apply for a loan, join a multi-doctor clinic by pooling your resources with other doctors, or ask family and friends for financial support. You also need to register your practice and get the necessary licenses before you start treating people.

Upskilling is usually recommended in order to learn about the latest breakthroughs in the medical sector or to advance in one's chosen job path. One may elect to seek a fellowship if they are unable to pursue an MD or DNB. Through a fellowship, you can obtain clinical experience under an expert and learn about a particular speciality. With the rise of ed-tech businesses and technological advancements, completing a fellowship program and earning certification aren't tough tasks.

Post-Graduation in Bangladesh:

1. *Post-graduation in Basic Sciences for teaching and other purposes is as follows:*
   - Diploma in basic subjects
   - M. Phil leading to PhD in basic subjects
   - FCPS/MD in a few basic subjects
   - *Merits*
     - Promotion is easy.
     - Not much competition.
     - Centre and Medical College-related job.
   - **Demerits**- Financially weaker than Clinical

Clinical Sciences
Post-graduation in Clinical Sciences for teaching/Specialist and other purposes are as follows-

- Bangladesh- Diplomas- MCPS- FCPS/MD/MS
- International- Diplomas- MRCP/M.Sc- FRCP/FRCS/P.hD
- **Merits**- Financially better than Basics, Regular Clinical attachment.
- **Demerits**- Busy life, Congested job opportunities,A lot of competition.

Public Health

- MPH Master of Public Health
- P.Hd in Public Health

Manaement Cadre

- MHA Master in Hospital Administration
- MPH Master in Public Health
- MBA (Administration)
- **Merits**– Easy promotions, no competition, and a fully open field in our country, such as authoritative posts.
- **Demerits**- Clinical exposure is minimal, and the job is tiring.

Medical Education: Post-graduation in Medical Education for teaching/ being an educationist and other purposes are under-

- MPHE-Master in Public Health Education
- Ph.D. in Medical Education
- **Merits**- Easy promotions, no competition and a fully open field in our country.
- **Demerits**- Clinical exposure is minimal and financially weaker.

Foreign Exams

Medical Students can take many foreign exams. A few important ones are as follows-

- USMLE for United States
  - Step I basic knowledge.
  - Step II, two-part one is theoretical and the other practical and then matching (difficult)
  - Canada, UK, Australia and the Middle East exams get exempted.
- PLAB for the United Kingdom
  - PLAB I theoretical clinical knowledge based on basic concepts
  - PLAB II is the fully clinical exam conducted at the UK
  - Exemption from Middle East exams, Ireland and AMC
  - AMC Exam for Australia- AMC MCQs exam (150 MCQs)- AMC Clinical exam
- MCCQE for Canada- MCCQE I is an MCQ-based exam- MCCQE II OSCE structured examination
- DHA/HAAD Exam for the Middle East- Single computer-based examination.
- Exemption at IMC (Ireland)-Ireland provides exemptions to medical doctors worldwide, but it is difficult to get a job there.

Civil Services

After completing a bachelor's degree, one is eligible for the Civil Services Exam for up to 30 years.

Research: The only thing of equal importance in the undergraduate, graduate, and postgraduate sectors is research.

- Enhancing research capabilities with the help of research societies, the Community Medicine Department and other helping hands.
- Publishing your work in the best Journal possible.

- Continuing your contribution to the research sector via reviewers, editors, etc.

Finally:

Explore: Explore more on the information you got and on the field of your choice.

Talk: Visit seniors in the field, ask questions about the field you like, and set your plans from today.

Assessment plan:

MCQs (Single Best Answer)

1. What is the primary aim of career planning in medical science?
   a) To ensure job security for doctors
   b) To improve financial stability in the healthcare sector
   c) To align individual capabilities with career opportunities
   d) To reduce unemployment in the medical field
2. Which of the following is NOT a feature of career planning?
   a) Continuous organizational process
   b) Training for roles requiring more responsibility
   c) Immediate job placement without training
   d) Guidance through training programs
3. What is a major drawback of pursuing foreign exams like USMLE during MBBS?
   a) Limited job opportunities abroad
   b) Lack of preparation materials
   c) Expensive and time-consuming if the US is not a goal
   d) Requires postgraduate degree before attempting
4. Which career option is suitable for individuals with good hand-eye coordination?
   a) Psychiatry
   b) Surgery
   c) Public health administration
   d) Academia
5. How can MBBS graduates enhance their research capabilities in Bangladesh?
   a) Only through foreign training programs
   b) By avoiding community medicine departments
   c) Through research societies and publishing work in journals
   d) By focusing solely on clinical practice

   Answer: 1.C,2.C,3.C,4.B,5.C

SAQs (Short Answer Questions):

1. Define career planning and explain its primary objectives in the context of medical science.
2. List three prerequisites for successful career planning in the healthcare sector.
3. Describe two merits and two demerits of pursuing certificate courses during medical training.
4. Identify and explain the major steps involved in the career planning model for medical professionals.
5. What are the differences between postgraduate options in clinical sciences and basic sciences in Bangladesh?

Bibliography

1. MacKinnon NJ, Rosema D, Cyca P. Career and life fulfillment and planning for medical trainees, and physicians. Int J Med Educ. 2022 Nov 28;13:305-306. doi: 10.5116/ijme.6372.17ba. PMID: 36444839; PMCID: PMC9911277.
2. Gennissen L, Stegers-Jager K, van Exel J, Fluit L, de Graaf J, de Hoog M. Career orientations of medical students: A Q-methodology study. PLoS One. 2021 May 21;16(5):e0249092. doi: 10.1371/journal.pone.0249092. PMID: 34019546; PMCID: PMC8139450.
3. https://medschool.vanderbilt.edu/career-development/wp-content/uploads/sites/5/2021/09/Guide-For-Career-Planning.pdf.Accessed: 2024-04-02
4. Iktidar, M.A., Sakib, M.M., Munni, U.R. et al. Medical students' career preferences in Bangladesh. BMC Med Educ 24, 81 (2024). https://doi.org/10.1186/s12909-024-05050-9
5. https://www.bmdc.org.bd/docs/curriculum/2021/17.GenericTopics.pdf.Accessed: 2024-04-02
6. Career After MBBS In Bangladesh - Doctors Gang.https://www.doctorsgang.com/fcps- md-mph-carrier-guidlines-for-doctors-htmlm1/ Accessed: 2024-04-02

Topic 15: Basic IPC practice

Md. Akram Hossain; Mahfuza Nasrin, Ariful Basher

Phase	Topic	Learning objective	List of contents	Method	Hour

Internship period	Basic Infection Prevention and Control practices	• Define the healthcare-associated infections (HAI)
		• Describe the global burden and Bangladesh's situation of HAI
		• Illustrate the chain of infections
		• Mention the root of transmission of infections
		• Describe different issues related to standard precautions
		• Describe different transmission-based precautions
		• Perform different activities related to infection control practices
			• healthcare-associated infections (HAI)
			• global burden and Bangladesh's situation of HAI
			• chain of infections
			• root of transmission of infections
			• standard precautions
			• transmission-based precautions
			• Infection control practices
			  • hand washing and rubbing
			  • respiratory hygiene, cough etiquette
			  • use of PPE
			  • needle stick injury
			  • disinfection & sterilization
			  • linen and waste management
				Interactive lectures, case studies, demonstrations	Five hours

Healthcare-associated Infections

Definition:

Healthcare-associated infections (HAIs) can be defined as (i) the infections acquired in the hospital by a patient admitted for a reason other than the infection in context; (ii) the infection should not be present or incubating at the time of admission, and (iii) the symptoms should appear at least after 48 hours of admission. This also includes:

- Infections that are acquired in the hospital but symptoms appear after discharge
- Occupational infections among staff of the healthcare facility (e.g., needle stick injury transmitted infections)
- Infection in a neonate that results while passage through the birth canal (in contrast to congenital infections due to transplacentally transmission, which are not HAIs).

Traditional terminologies such as hospital associated or nosocomial infections have diminished. Centers for Disease Control and Prevention (CDC), Atlanta recommends to use Healthcare-associated infections as a more accepted terminology. CDC (Centers for Disease Control and Prevention, Atlanta) has established the National Healthcare Safety Network (NHSN) to monitor the incidence of healthcare-associated infections (HAIs).

Burden of Hai

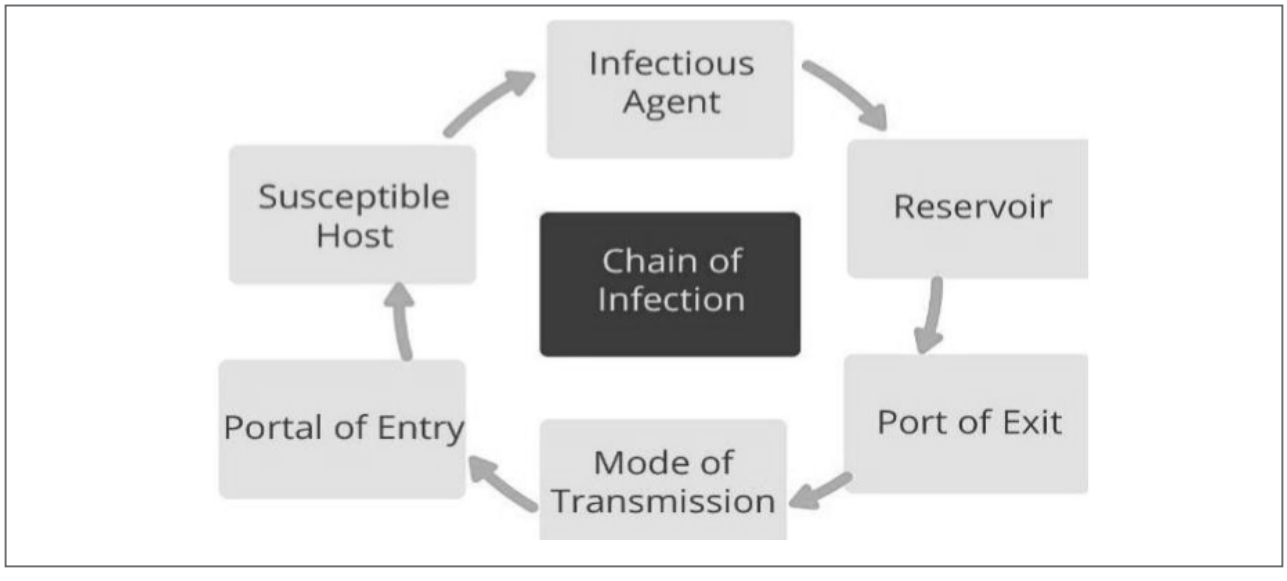
HAIs are one of the most common adverse events in the care delivery system. According to World Health Organization (WHO), at any given time 7% of patients in developed and 10% in developing countries acquire at least one HAI. Mortality from HAI occurs in about 10% of affected patients. Treatment of these HAIs adds a huge economic burden to the hospital. In Europe, >4 million patients are affected by approximately 4.5 million episodes of HAI annually, leading to 16 million extra days of hospital stay and 37000 attributable deaths. In the USA, an estimated around 1.7 million patients are affected by HAI each year with a prevalence of 4.5% and accounting for 99,000 deaths. CDC found that the implementation of a multifaceted IPC program in 74 community hospitals resulted in a 32% reduction in healthcare-associated infections and an estimated $26 million in cost savings over three years.

Effects of Healthcare Associated Infection:

- Increased mortality & morbidity
- Prolonged hospital stays
- Increased anti-microbial resistance
- Increased drugs bill
- Increased staffing costs
- Demoralising for staff & patients
- Decreased public confidence in hospitals & doctors

Chain of Healthcare-associated infections (HAIs):

Infectious diseases result from the interaction of agent, host and environment. Transmission occurs when the agent leaves its reservoir or host through a portal of exit, is conveyed by some mode of transmission, and enters through an appropriate portal of entry to infect a susceptible host.



Host Susceptibility

- Immunity-Majority of the hospitalized patients has impaired immunity either as a part of their disease processes or due to the treatment they received in the hospital.
- Age -Neonate and elderly patients are more susceptible than adults.
- Underlying comorbidities- e.g Diabetes mellitus, Cancer
- Patient undergoing diagnostic and therapeutic interventions-Patients on devices such as urinary catheter or endotracheal tube are increased risk of acquiring infection.
- Patient receiving transfusion

Sources of infection

- Endogenous Source: The majority of nosocomial infections are endogenous in origin, i.e. they involve the patient's own microbial flora which may invade the patient's body during some surgical or instrumental manipulations.
- Exogenous Source: Exogenous sources are from the hospital environment, healthcare workers (HCWs), or patients.
  - Environmental sources include inanimate objects, air, water, and food in the hospital. Inanimate objects in the hospital are medical equipment (endoscopes, catheters, etc.), bedpans, surfaces contaminated by patients' excretions, blood and body fluids .
  - Healthcare workers may be potential carriers, harboring many organisms; which may be multidrug-resistant e.g. nasal carriers of Methicillin-resistant Staphylococcus aureus(MRSA)
  - Other patients of the hospital may also be the source of infection.

Microorganisms Implicated in HAIs

HAI's can be caused by almost any microorganism, but those that survive in the hospital environment for long periods and develop resistance to antimicrobials and disinfectants are particularly Important.

The ESKAPE pathogens: They are responsible for a substantial percentage of health care associated infections in the modern era and represent the vast majority of multidrug-resistant isolates present in a hospital.

1. Enterococcus faecium
2. Staphylococcus aureus
3. Klebsiella pneumoniae
4. Acinetobacter baumannii
5. Pseudomonas aeruginosa
6. Enterobacter species.

Other infections that can spread in hospitals include

1. Escherichia coli
2. SARS-CoV-2(COVID-19)
3. Hospital-acquired Mycobacterium tuberculosis
4. Legionella pneumophila
5. Candida albicans
6. Clostridium difficile diarrhea

7. Blood-borne infections transmitted through needle prick injury or mucocutaneous exposure of blood includes HIV, hepatitis B and C viral infections.

Modes Of Transmission

Microorganisms spread in the hospital through several modes such as contact, droplet, and airborne transmissions.

Contact transmission:

- Direct transmission - from one person to another person without a contaminated intermediate object or person.
- Indirect transmission - through a contaminated intermediate object (clothes, patient-care devices, environmental surfaces, fomite) or person.

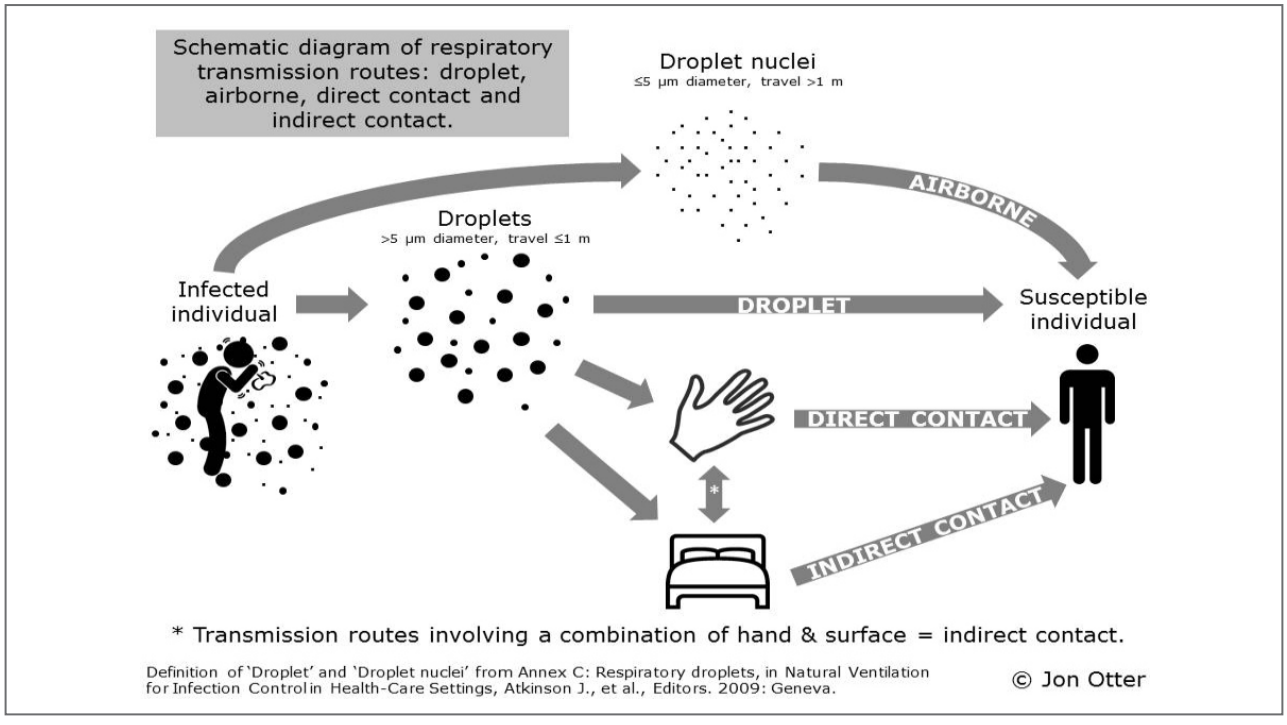
Droplet Transmission:

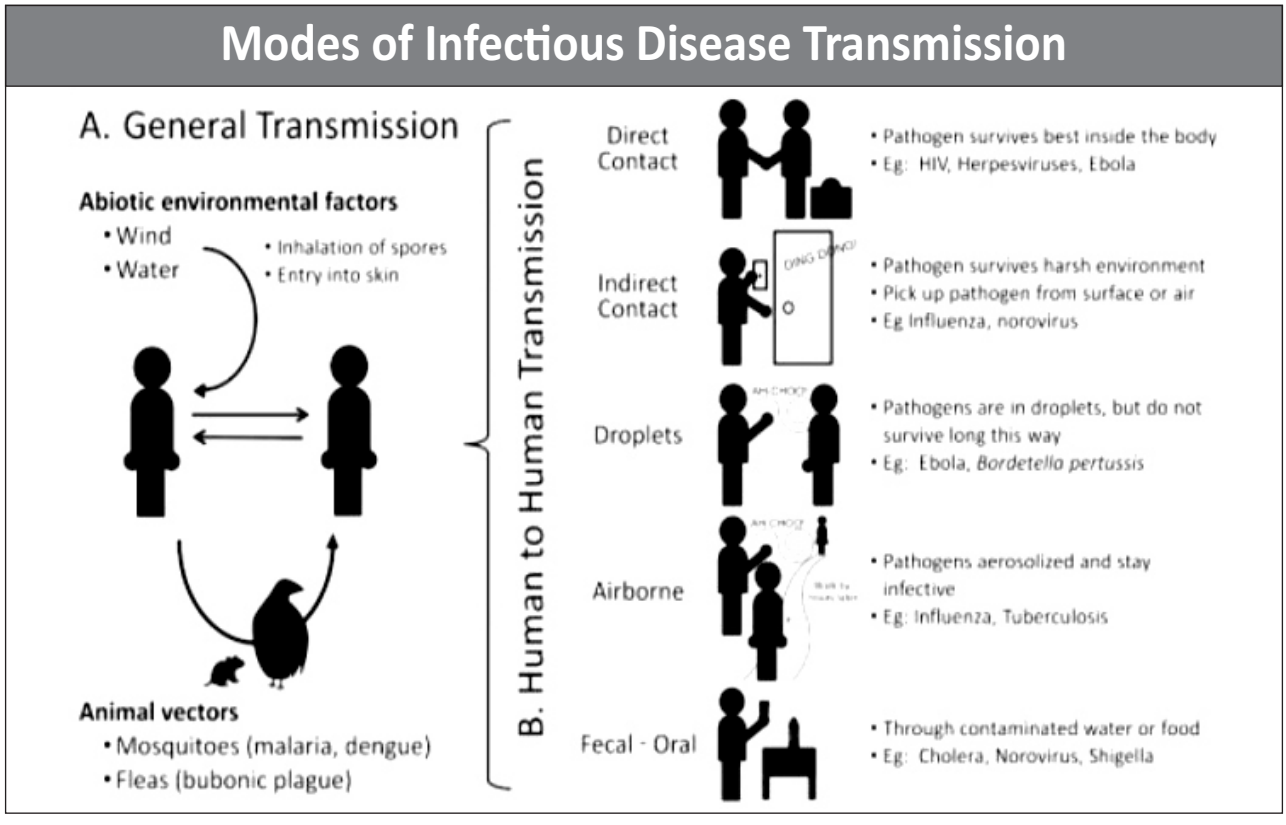
- Respiratory droplets (large particle droplets more than 5µm in size), generated during coughing, sneezing or talking.
- Transmission requires close contact
- travel a short distance (less than 3 feet)

Airborne Transmission:

- Airborne droplet nuclei (small particle residue less than 5µm in size)
- suspended in the air for long periods of time
- Microorganisms carried by air currents and may be inhaled by a susceptible host within the same room or a longer distance from the source patient.

The following two figures illustrate the mode of infection-





Major Hai Types

Though several types of HAIs exist, there are four most common types (listed below) which are often monitored to estimate the burden of HAI in a hospital. Out of these, the first three are together called device-associated infections (DAIs).

1. Catheter-associated urinary tract Infection (CAUTI, 33%)
2. Central line-associated bloodstream infection (CLABSI, 13%)
3. Ventilator-associated pneumonia (VAP, 15%)
4. Surgical site infection (SSI, 31%).

Prevention of HAIs by Infection prevention and control:

Infection prevention and control:

A system of policies, procedures and practices successfully implemented to minimize the risk of transmission of pathogenic microorganisms.

Benefits of IPC

- Protecting yourself
- Protecting your family, community & environment
- Protecting your patients

The preventive measures for HAIs can be broadly, categorized into

(i) Standard precaution and

(ii) Transmission-based or specific precautions.

Standard Precautions

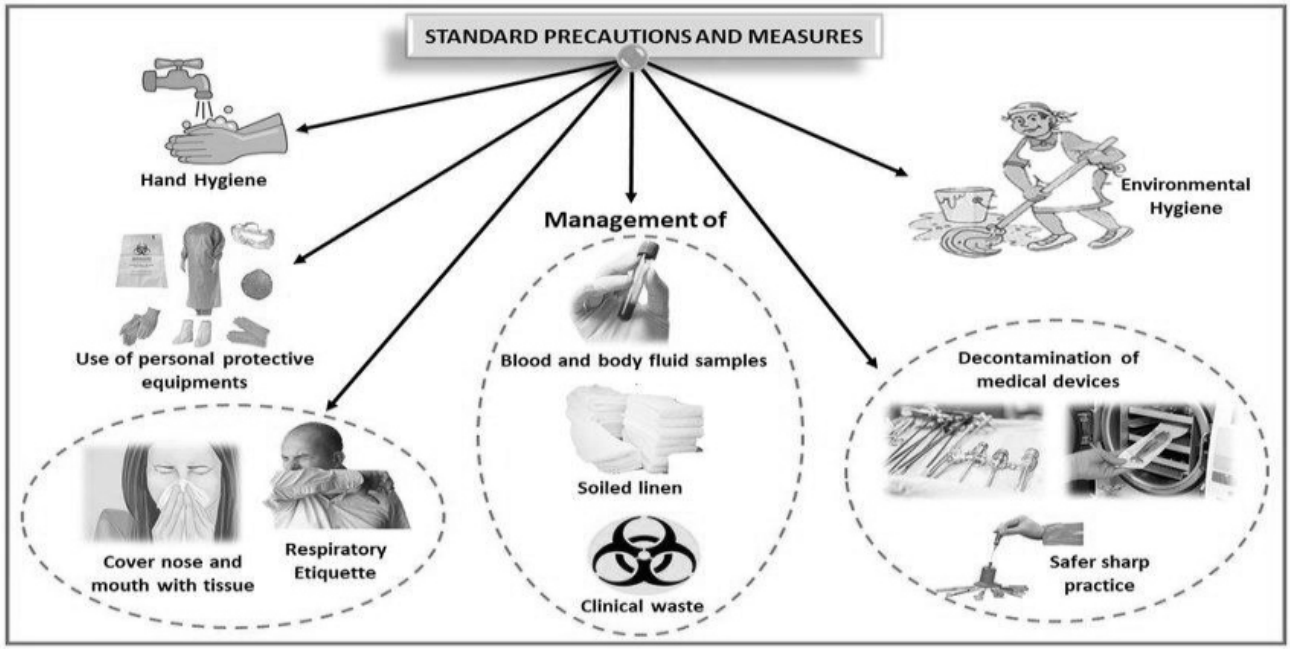
Standard Precautions are guidelines that outline the minimum set of interventions that are required to prevent the transmission of microorganisms. Hand hygiene, respiratory hygiene and cough etiquette, appropriate use of personal protective equipment, safe work and injection practices, and environmental cleaning, are all elements essential in breaking the cycle of microorganism transmission. These measures should be followed when providing care to or handling:

* All individuals, whether they appear infectious symptomatic, or not
* All specimens (blood or body fluids) whether they appear Infectious or not
* All needles and sharps whether they appear infectious or not.

Standard Precautions

They are indicated while handling all patients, specimens, and sharps. Components of standard precautions include:

1. Hand hygiene
2. Personal protective equipment (PPE)
3. Biomedical waste management
4. Spillage cleaning
5. Disinfection of patient care items
6. Environmental cleaning of surface and floor
7. Sharp Safe use and disposal of sharp
8. Respiratory hygiene and cough etiquette.



Hand Hygiene

The hands of the HCWs are the main source of transmission of Infections in healthcare facilities. Hands contaminated with transient bacteria pose a significant risk for transmission of infection. Hands with dermatitis or other types of skin breakdown are more susceptible to becoming colonized with transient bacteria, including multidrug-resistant organisms.

Types of Hand Hygiene Methods

Hand Rub:

Alcohol-based (70-80% ethyl alcohol) and chlorhexidine (0.5-4%) based hand rubs are available. The duration of contact has to be at least 20-30 seconds.

Advantage: After a period of contact, it gets evaporated on its own; hence drying of hands is not required separately

Indications: Hand rub is indicated during routine patient care activities or taking rounds in the wards or whenever the opportunity for hand hygiene arises, except when the hands are visibly soiled with blood or other specimens.

Hand Wash:

Antimicrobial soaps (liquid, gel, or bars) are available containing 4% chlorhexidine. If facilities are not available, then even ordinary soap and water can also be used. The duration of contact has to be at least 40-60 seconds. Hand washing is indicated in the following situations:

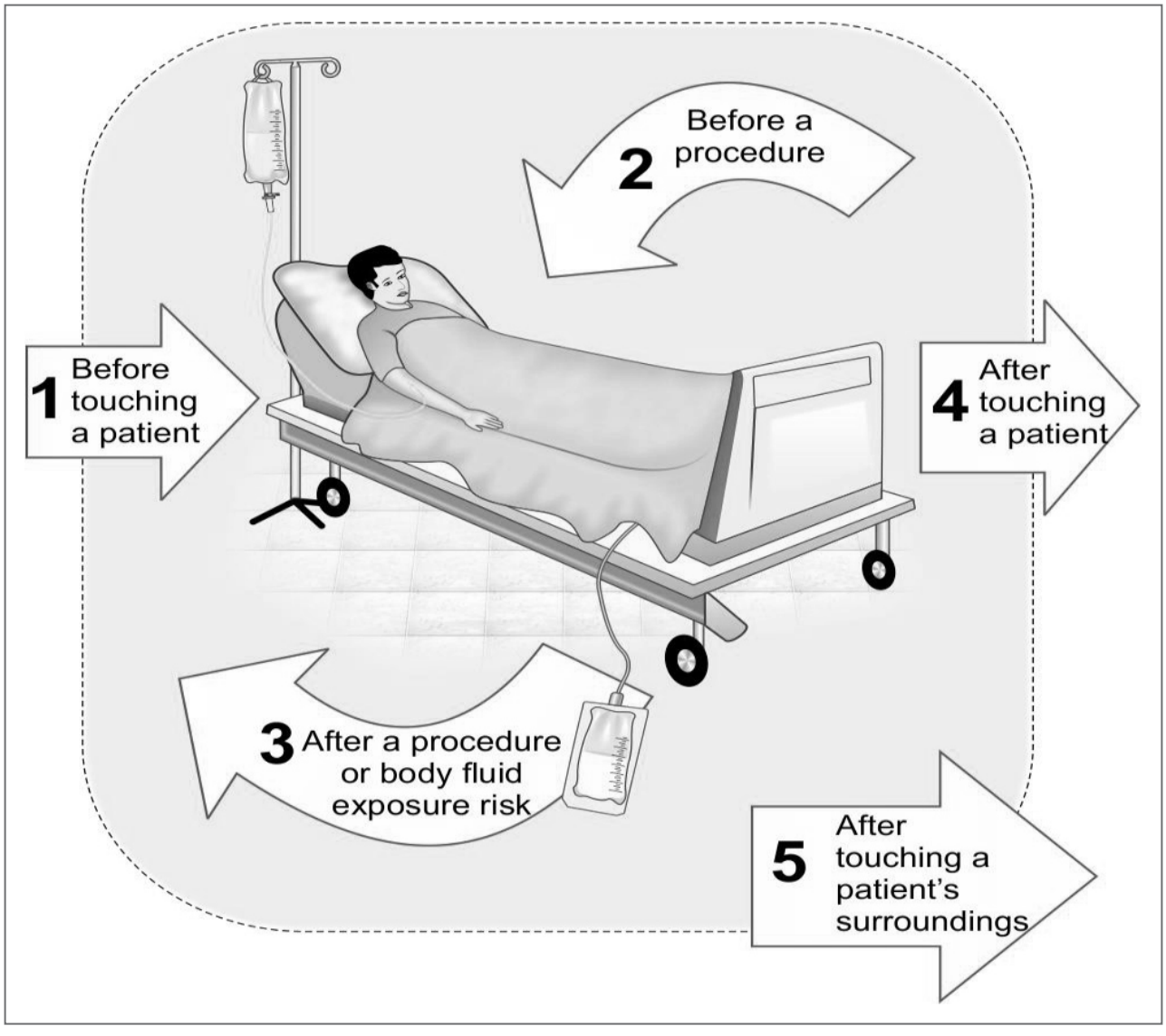
1. When the hands are visibly soiled with blood, excreta, pus, etc.
2. Before and after eating
3. After going to the toilet
4. Before and after shift of the duty
5. When giving care to a patient with diarrhea.

Surgical Hand Scrub (3-5 min): This is indicated prior to any surgical procedure and also in between cases; using 4% chlorhexidine hand wash.

Indications (Five Moments for Hand Hygiene):

The WHO has published standard guidelines describing the situations or opportunities when hand hygiene is indicated in healthcare sectors, known as 'My Five Moments for Hand Hygiene'; which include:

1. Before touching a patient
2. Before clean/aseptic procedures
3. After body fluid exposure/risk
4. After touching a patient
5. After touching the patient's surroundings.



Case Scenario:

- A nurse working in an ICU goes to patient A, checks the pulse, performs hand rub and adjusts oxygen flow, and she informs the doctor about the patient A.
- The doctor decided to draw a blood sample of patient A. He explains the procedure to the patient A while feeling the radial artery and draws the blood sample with gloved hand. After drawing blood, he performs a hand rub.
  a. How many moments of hand hygiene were available?
  b. How many moments of hand hygiene were followed?

Explanation:

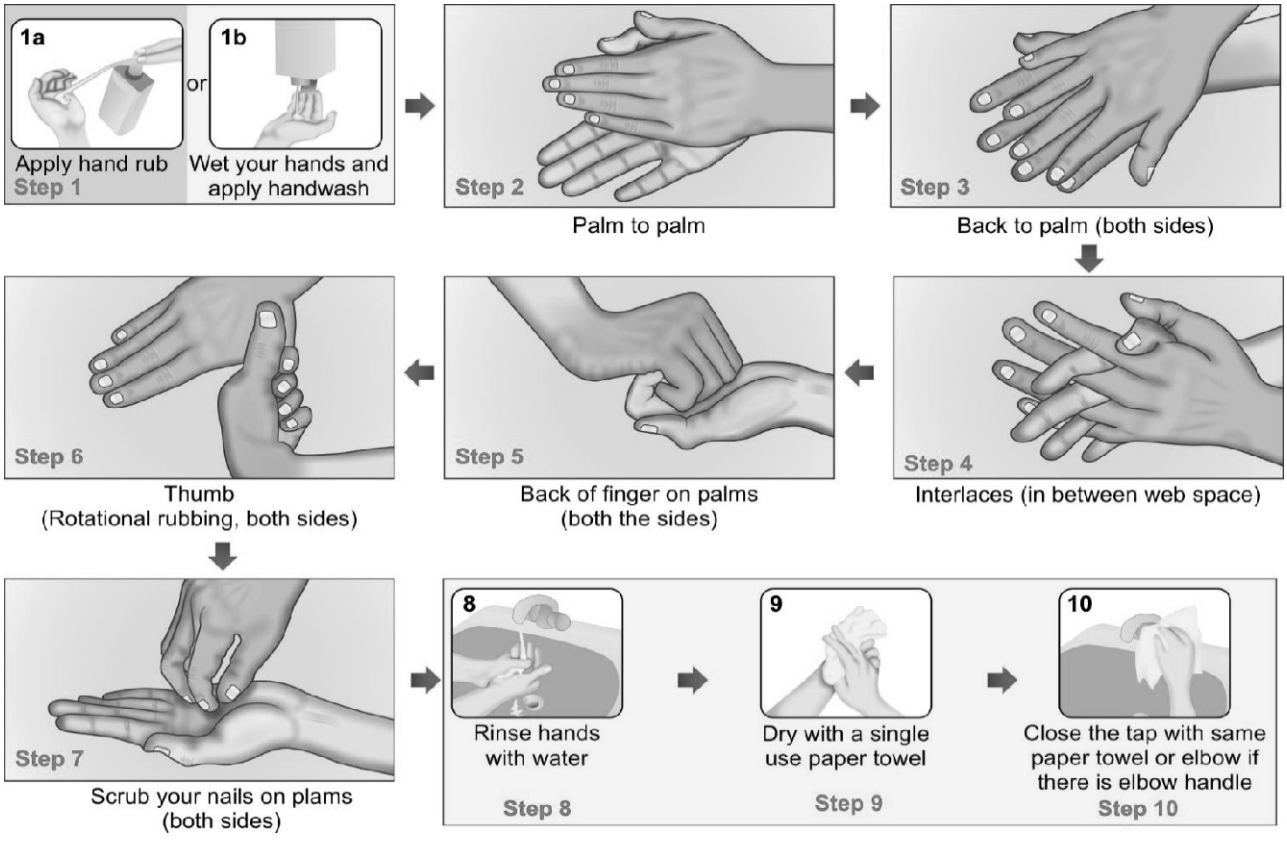
a. 6 opportunities came

b. 2 moments followed

Hand Hygiene opportunities	Moment description	WHO Hand Hygiene moments	Hand Hygiene performed
1	Nurse before check the pulse at Patient A	1(Before touching patient)	No
2	Nurse after check the pulse at Patient A	4(After touching patient)	Yes
3	Nurse after adjusting the oxygen flow of Patient A	5(After touching surrounding)	No
4	Doctor before feeling radial artery of Patient A	1(Before touching patient)	No
5	Doctor after feeling radial artery of Patient A	4(After touching patient)	No
	~~Doctor before drawing blood of Patient A~~	~~2(Before a procedure)~~	Not applicable
6	Doctor after drawing blood of Patient A	3(After a procedure)	yes

Steps of Hand Rubbing and Hand Washing

WHO has also laid down the guidelines describing the appropriate steps involved for effective hand rubbing and hand washing.



Hand rub Steps 1-7, Hand wash step-1-10

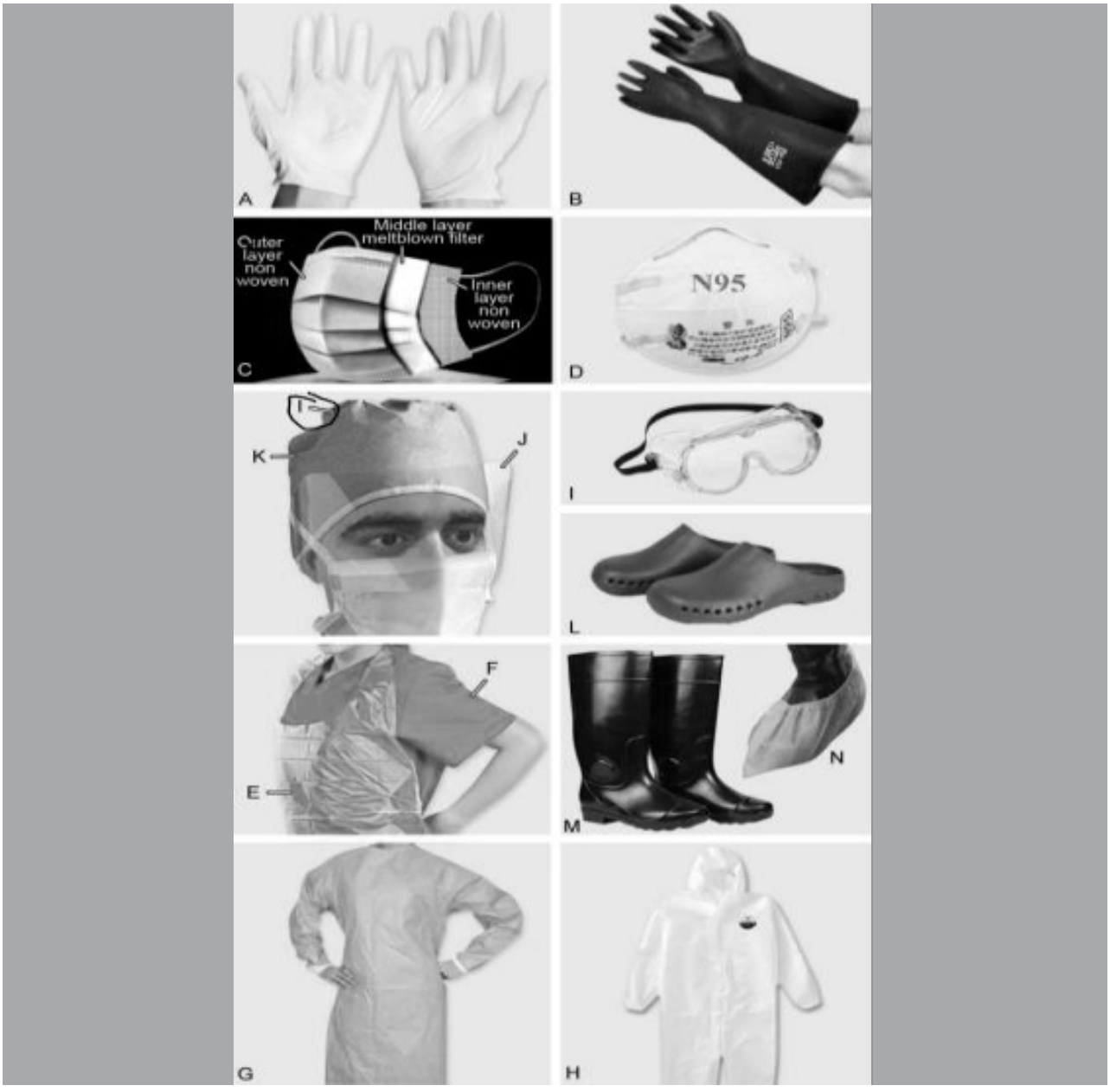
Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is designed to protect the wearer's skin, eyes, mucous membranes, airways, and clothing from coming into contact with infectious agents and to protect the skin and mucous membranes of Health care personnel (HCP) from exposure to blood and/or body fluids and from the HCW to the patient during sterile and invasive procedures.

- The various PPE used in healthcare settings are gloves, mask/respirator, gown/plastic apron/coverall, goggles or face shield, shoe cover and head cover.
- Selection of appropriate PPE is based on:

  The level of risk associated with contamination of skin, mucous membranes, and clothing by blood and body fluids during a specific patient care activity or intervention (as a part of standard precaution).
  Route of transmission of suspected organisms- contact, droplet, and inhalation (as a part of transmission-based precaution).

  Though most PPE are used as a part of transmission-based precautions; there are few indications where some PPE are used as a part of standard precaution.
  The PPE must be removed immediately following the Indication for which it was used.



Gloves

Gloves can protect both patients and HCWs from exposure to microorganisms that have colonized their hands. It is used as part of standard, contact and droplet precautions.

Gloves should be worn only when there is an indication. The use of gloves in situations when their use is not indicated represents a waste of resources and gives a false sense of security. Therefore, gloves should not be used when not clinically indicated.

Hand hygiene and glove use

The glove is not a substitute for hand hygiene. The following measures should be adapted during glove use.
*Hand hygiene before gloves use: This is to prevent possible cross-contamination of gloves with HCP's flora

*Hand wash after glove use: To prevent cross-contamination, hands must be washed immediately after

the removal of gloves as it creates a moist, warm, and occlusive environment between the skin and the glove. Furthermore, micro tears can occur in gloves which may lead to transmission of organisms if the HCW has had contact with blood or body fluid.

* Change: Gloves should be worn for a single patient care activity and not beyond. Gloves must be changed between patient contacts and between separate procedures on the same patient

* No hand hygiene over the gloved hand: Gloved hands should neither be wiped with any form of hand rub nor washed with soap and water.

Glove type	Indications	Common Examples of Glove Materials
Patient examination gloves	Patient care, examinations, and other nonsurgical procedures involving contact with mucous membranes; laboratory procedures	• Natural rubber latex • Nitrile • Polyvinyl chloride (vinyl) and other synthetics • Polyethylene (plastic)
Surgeon's gloves	Surgical procedures	• Natural rubber latex • Nitrile • Combinations of latex and/or synthetics
Nonmedical gloves	• Housekeeping procedures (e.g., cleaning, disinfection) • Handling contaminated sharps or chemicals • Not for use during patient care	• Natural rubber latex and nitrile or chloroprene blends • Neoprene • Nitrile • Butyl rubber

Indications for appropriate use of glove use

Indications for glove use:

As a part of standard precautions

- Before a sterile procedure
- Anticipation of contact with blood or body fluid, regardless of the existence of sterile conditions and including contact with non-intact skin and mucous membrane

As a part of contact precautions:

- Contact with a patient (and his/ her immediate surroundings)
- Heavy duty gloves: To protect from sharp injuries, mainly used by biomedical waste handlers

Indications for glove removal

- As soon as gloves are damaged
- Gloves are meant for single-use and must be changed in between patients or patient care activities
- When there is an indication for hand hygiene

Clinical situations where the use of gloves is not recommended

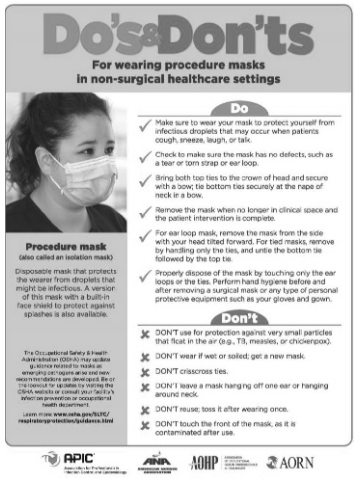
- For routine patient care activities if there is no anticipated risk to blood/body fluid or no indication for contact precautions
- Examples: Measuring blood pressure, temperature, and pulse, while administering medications (oral or Injections), during maintenance of IV cannula, during dressing and transporting patient, writing in the patient's case sheet, etc.

Surgical (3-ply) Mask and Respirators:

Respiratory protection is essential when there is a risk of transmission of droplets and aerosols. There are two types of PPES available for respiratory protection; surgical masks and respirators.

Surgical Mask (3-ply Mask):

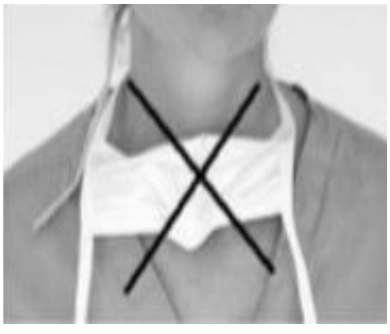
Surgical masks (also called medical masks or 3-ply masks) are loose-fitting, single-use items that cover the nose and mouth. They are used as part of standard precautions to prevent splashes or sprays from reaching the mouth and nose of the person wearing them.



Composition:

It has three layers

1. Outer fluid repellent layer: Hydrophobic layer that can repel water, blood and body fluids
2. Middle filter layer: It is made up of melt-blown material; filters bacteria/viruses and also filters out the water droplets. In contrast to N95 respirator, the filter pore size of a surgical mask is not standardized.
3. Inner hydrophilic layer: Absorbs water, sweat, and spit; made up of non-woven fabric.



Respirator (n95 Respirator):

A respirator is a device designed to protect the wearer from airborne microorganisms (e.g. M. tuberculosis). There are many types of respirators. The most common respirator used in hospital settings is N95 respirator,

- N95 refers to 'not resistance to oil and ability to filter off 95% of airborne particles'
- Composition: The N95 respirator is comprised of four layers of material: outer and inner layers of spun-bond polypropylene and middle two layers of cellulose/ polyester, melt-blown polypropylene filter
  - * Fit checking: After wearing the N95 respirator, the HCW must perform a fit check to ensure if it is properly fitted. No clinical activity should be undertaken until a satisfactory fit check has been achieved.
  - * Fit testing: Fit testing is done to identify which size and style of N95 respirator is suitable for an individual and to train the HCW on how to don and doff the N95 respirator It should be done at the time of joining and thereafter annually.

Need to Remember During use of Mask/ Respiratord:

Dos	Don'ts
Use mask only when clinically indicated • Surgical mask- when handling respiratory patients • N95 respirator or equivalent when doing aerosol generating procedures	Do not use mask when clinically not indicated Wearing masks when not indicated creates a false sense of security that can lead to neglect the other essential measures such as hand hygiene practices
Always hold by its strings. Perform hand hygiene before and after using mask	Don't touch/hold front/back part of mask
Fitting: Compress the mask to ensure a seal across nose bridge, face and cheeks	Do not allow tangling of mask around neck
Discard surgical mask after 46 hour and change N95 respirator or equivalent after 8 hour, in case of shortage of supply follow the reuse Strategy	Do not keep using mask for longer time/days Do not wash mask and reuse
Discard in designated bag or closed bin	Do not throw masks here and there after use

Protective Body Clothing:

Laboratory coats, plastic aprons, disposable gowns, and coveralls (full body cover) are examples of protective body wear used in hospitals.

* Disposable gowns: They are long-sleeved, fluid resistant indicated when there is a moderate risk of contamination with blood/body fluid

* Coverall: It comprises a gown with pants and a hood which covers the whole body including the head Coveralls should be used in the following situations

- Anticipated risk of splashing with a large volume of blood/body fluid (e.g. cardiac surgeries)
- Anticipated risk of extensive skin-to-skin contact with a patient known to harbor organisms of contact transmission (e.g. lifting a patient with uncontrolled Diarrhea)
- Handling patients infected with pathogens of high mortality (e.g. Nipah or Ebola) or in the laboratory while handling their specimen
  - * Donning: Gown should be fully covered, torso from neck to knees, arms to end of the wrist, and then wrapped around the neck. It should be fastened to the back of the neck and waist

* Doffing: Once the task is performed, the gown must be removed immediately after use by unfastening the gown ties taking care that sleeves should not contact the body while reaching for the ties.

Protective Eye/Face Wear:

They are worn by HCP to protect the eyes and face of the wearer from sprays of respiratory secretions, blood, or body fluids. They should be worn when the HCP anticipates participating in a procedure that has the potential to generate splashes or sprays of blood, body fluids, secretions, or excretions. Personal eyeglasses or contact lenses do not provide adequate protection and are not considered acceptable eye protection. The use of face shields allows HCPs to wear their eyeglasses and increase protection to other areas of the face, including the eyes.

Head Cover and shoe cover:

* A head cover or cap is used when spillage of blood is suspected, e.g. during major cardiac surgeries, etc.
* Shoe covers include:
  (1) Surgical shoes (slippers) and shoe covers: Used mainly in ICU and operation theaters to protect HCWs from organisms present on the floor and
  (2) Gumboots: Used for anticipated risk of sharp injuries (e.g. for biomedical waste handlers, laundry staff, and housekeeping staff).

Donning and doffing:

In order to minimize the risk of transmission of infection, donning (wearing) and doffing (removing) of PPE must be performed in a particular sequence.

Donning (wearing): Gown first →→→ Mask or respirator →→ Goggles or face shield → Gloves

Doffing (removing): Gloves first → Face shield or goggles →→ Gown→→→ Mask or respirator.

Donning and doffing personal protective equipment in the in the right order:

Doffing is extremely important as even a minor breach in the doffing procedure would subject the HCW to a huge risk of acquiring the infection. This could be a potential reason why many HCPs got infected during the COVID-19 pandemic.

*All PPE should be removed just before exiting the patient room except a respirator, which should be removed after leaving the patient room and closing the door

*Discard into appropriate yellow bins:

Preventing Needle Stick and Sharp Injury:

An exposure that might place HCP at risk for Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), or HIV infection is defined as a percutaneous injury (e.g., a needle stick or cut with a sharp object) or contact with mucous membrane or non-intact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other body fluids that are potentially infectious. The probability of infection after exposure of a susceptible person depends on the route of exposure, the concentration of infectious virions in the implicated body fluid, the volume of infective material transferred, and, for HBV, the susceptibility of the exposed person.

Diseases Spread by Needles include HBV, HCV, HIV

Risk of transmission is: Highest for HBV (30%) Followed by HCV (3%) and HIV (0.3%).

Infectious specimens for NSI

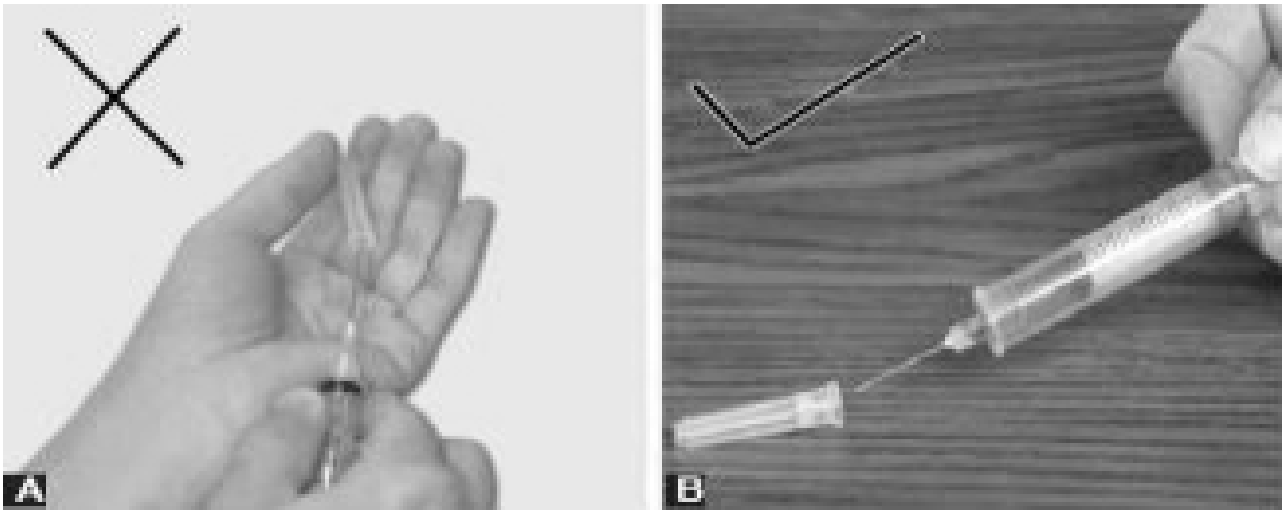
Potentially infectious body fluids include Blood, Semen, vaginal secretions, CSF and all sterile body fluid

Following are not considered potentially infectious are unless visibly contaminated with blood

- Feces
- Nasal secretion
- Saliva and Sputum
- Sweat and tears
- Urine and vomitus

Precautions during Handling Needles:

- Go slowly. Rushing can lead to accidents. Take your time when you use needles.
- Standard precautions must be followed
- Work surfaces must be disinfected with 0.5% sodium hypochlorite
- Health care workers (HCWs) must be immunized against HBV
- Spillage of blood and other body fluids must be promptly cleaned
- Disposable needles should be used
- Never recap needles and proper disposal after use
- Use safety features. Needle technology has come a long way. Learn and use any devices that can help you avoid accidents.
- Don't recap needles.
- Always use a sharps container. Always throw away used needles in a puncture resistant sharp container. This keeps needles out of the trash.



Recapping of needle: **A.** Wrong method; **B.** Correct method (single hand 'scoop' technique)

Management of needle stick injury (nsi):

1. Wash it- Clean any accidental sticks right away. Rinse and wash the area well with running water and soap. No need to use antiseptics or disinfectants. It's also a good idea to flush out eyes, nose, and mouth with water or sterile saline, in case of any splashes from the needle.

2. Fact-check it-Find out as much as possible about the source patient who used the needle before you. It's especially important to find out if they could have HIV, hepatitis B, or hepatitis C.

3. Get treated immediately-This is an urgent situation and requires immediate treatment in a healthcare setting. The treatment plan will depend on the situation, including how deep the needle went in, where it stuck you, your medical history, and the medical history of the source patient.

4. Report it to designated nodal center- Every hospital must have a nodal center for management of NSI. Reporting any injury from an accidental needle stick not only helps to get the right kind of care but also helps shape guidelines for future needle handling so other people stay safe.

Steps of post-exposure management

1. First aid
2. Report to the designated nodal center
3. Take the first dose of PEP for HIV
4. Testing for Blood born viruses (BBVs)
5. Decision on PEP for HIV and HBV according to standard guidelines
6. Documentation and recording of exposure
7. Informed consent and counseling
8. Follow-up testing of HCWs
9. Precautions during the follow-up period

Possible measures may include the following depending on test results:

- Post-exposure prophylaxis (PEP) The first dose of PEP for HIV should be taken as early as possible. Effect is maximum if taken <2 hours and effect is nil if taken after 72 hours of exposure. If HIV negative status of the source is documented in patient's case record, then the first dose of PEP is not required.

- For HIV: Workers sustaining accidental parenteral exposures to HIV should be counseled to undergo baseline and follow-up testing for 6 months after exposure (e.g., at 6 weeks, 3 months, and 6 months) to diagnose infection. Most HIV exposures warrant a two-drug regimen using two nucleoside reverse transcriptase inhibitors (NRTIs) or one NRTI and one nucleotide reverse transcriptase inhibitor (NRTI).

- Vaccine for Hepatitis B. If the recipient has been successfully vaccinated, nothing may be required. For exposed persons who are in the process of being vaccinated but have not completed the vaccination series, vaccination should be completed as scheduled.

- When hepatitis B immune globulin (HBIG) is indicated, it should be administered as soon as possible after exposure (preferably within 24 hours). The effectiveness of HBIG when administered later than 7 days after exposure is unknown. When hepatitis B vaccine is indicated, it should also be administered as soon as possible (preferably within 24 hours) and can be administered simultaneously with HBIG at a separate site.

- For Hepatitis C: PEP with immunoglobulin antiviral agents or immunomodulators is not recommended after exposure to HCV-positive blood. There is currently no PEP for HCV.

- Hepatitis C monitoring- No specific action is needed but the recipient needs to be monitored closely in case treatment is needed. HCP who has been exposed to an HCV-positive source should have baseline testing for anti-HCV and ALT activity performed, followed by testing for anti-HCV and ALT activity at 4 to 6 months after the exposure to detect infection.

First Aid: Management of exposed site

Do's	Don'ts
The earliest is the first aid, the lesser is the chance of transmission of BBVs. ➢ For splash injury- Irrigate thoroughly the site (e.g., eyes or mouth or other exposed area) vigorously with water at least for 5 min. ➢ Spit fluid out immediately if gone into the mouth and rinse the mouth several times. If wearing contact lenses, leave them in place while irrigating. Once the eye is cleaned, remove the contact lenses and clean them in a normal manner.	➢ Do not panic ➢ Do not place the pricked finger into the mouth reflexively ➢ Do not squeeze blood from the wound ➢ Do not use antiseptics and detergent.

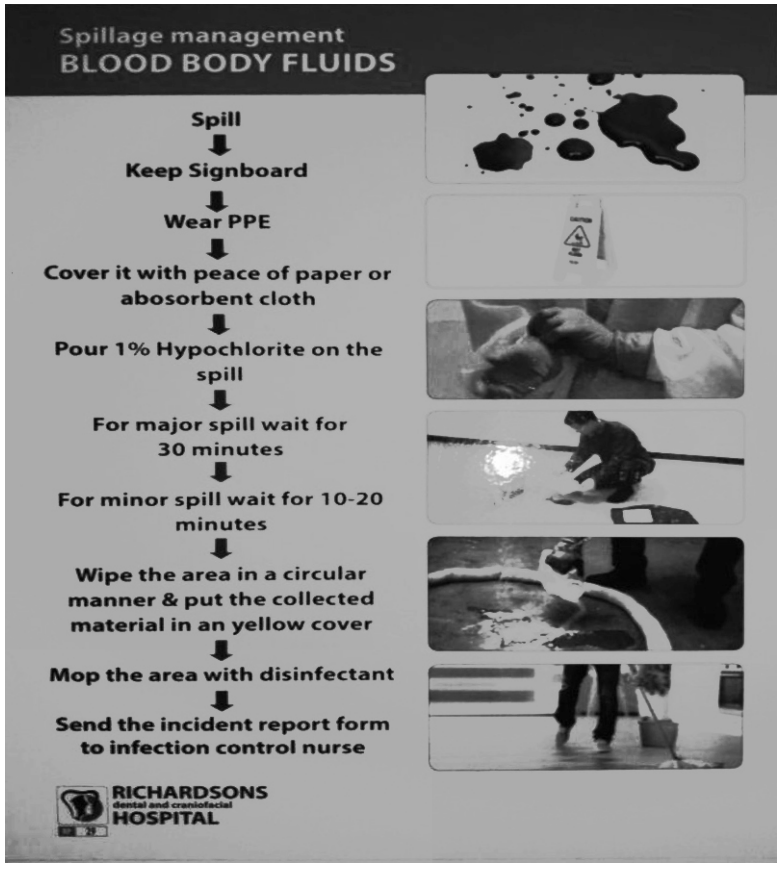
Blood Spill Management

Spillage of blood and body fluid poses a substantial risk for the transmission of blood-borne viruses such as hepatitis B, C, and HIV. Therefore, any spillage (small, few drops to large, few mL) should be considered infectious and needs to be cleaned at the earliest.

Steps of Spill Management (cdc)

The following steps need to be sequentially followed for the management of blood or body fluid spillage.

1. Any spillage, should be attended immediately
2. Mark the spill area, place the wet floor signage
3. Wear appropriate PPE (gloves and gown) as mentioned in the spill kit
4. Confine the spill and wipe immediately with an absorbent towel or cloth, which is spread over the spill to solidify the blood or body fluid. Then it is disposed of as infectious waste
5. Clean with hypochlorite (freshly prepared)
   - ► For large spills (>10 cm size): Use 1:10 dilution of 5% hypochlorite (5000 ppm) i.e. 0.5%
   - ►For small spills (<10 cm size): Use 1:100 dilution of 5% hypochlorite (500 ppm), i.e. 0.05%
6. Allow the disinfectant to remain wet on the surface for at least a contact time of 10 min
7. Rinse the area with clean water to remove the disinfectant residue.



Transmission-based Precautions (TBPs)

Definition:

Transmission-based precautions (TBPs), also called specific precautions are a set of infection control practices that should be followed over and above the standard precautions.

- TBPs should be practiced when giving care to patients who are infected with infectious agents having specific modes of transmission such as contact, droplet, and airborne
- Accordingly, there are three types of TBPS-
  1. contact precautions,
  2. droplet precautions and
  3. airborne precautions
- TBPs should be followed even when the specific infections are suspected and may be discontinued later when the diagnosis is ruled out.

Contact precautions

Contact precaution should be followed when there is definitive or suspected evidence of certain infectious agents that are transmitted by direct or indirect contact during patient care.

* Direct transmission occurs when infectious agents are transferred from one person to another person without a contaminated intermediate object or person. For example, direct contact through contaminated hands (the most common mode of transmission of organisms in healthcare settings) or direct contact with blood or body fluids from an infectious person.

* Indirect transmission involves the transfer of an infectious agent through a contaminated intermediate object (clothes, patient-care devices, environmental surfaces, fomite) or person.

Agents Transmitted Through Contact

1. MRSA (Methicillin-resistant S. aureus)
2. CRE (Carbapenem resistant Enterobacteriaceae)
3. VRE (vancomycin-resistant enterococci)
4. MDR non-fermenting gram-negative bacilli such as Acinetobacter, Pseudomonas, etc.
5. Agents of conjunctivitis (e.g. adenovirus, gonococcus, Chlamydia)
6. Any highly contagious skin lesions (abscess, impetigo, infected ulcers) Infected with Group A Streptococcus, Staphylococcus, HSV lesions
7. Skin infestations (e.g. scabies)
8. Agents of diarrhea such as rotavirus, cholera, C. difficile
9. Enterically transmitted hepatitis viruses (HAV and HEV).

Infection control measures

The following infection control measures should be applied In addition to other standard precaution measures.

1. Hand hygiene: Strict adherence to hand hygiene is an absolute requirement of contact precaution as transmission via contaminated hands accounts for the majority of contact transmission

2. PPEs: Wear a gown and gloves on room entry. Change the gown and gloves between patients even if both patients share a room and/or one or both are on Contact Precautions. Always use hand hygiene between glove changes. Gloves and gowns must be removed before leaving the patient-care area.

3. Equipment: Single-use patient-dedicated equipment (eg blood pressure cuffs, stethoscopes, thermometers) must be used. If not possible, then the equipment should be cleaned and allowed to dry before use on another patient.

4. Patient placement: A single isolation room with a bathroom facility is preferred. If not available, then cohorting is recommended. Cohorting may be carried out in various ways-Patients with similar infections requiring contact precautions can be placed together either in the same isolation room or in the same cubicle or corner of a ward, or Spatial separation of a minimum of 3 feet distance between the beds with privacy curtains.

5. Transfer of patients: Patient movement should be limited only to medically necessary purposes. When transport is necessary, the HCW must wear PPE before transport and the infected areas of the patient's body should be covered to contain the infection.

6. Disinfection of the rooms: Patient rooms must be frequently cleaned and disinfected adequately (e.g., at least daily and before use by another patient) focusing on frequently touched surfaces and equipment in the immediate vicinity of the patient.

Droplet precautions

- Droplet precautions are used in addition to standard precautions are intended to prevent the spread of infectious agents that are transmitted through respiratory droplet via close respiratory or mucous membrane contact with respiratory secretions.
- Respiratory droplets are large particles (>5 µm in size) that are generated by a patient who is coughing, sneezing or talking
- Transmission via large droplets requires close contact (<3 feet) as droplets do not remain suspended in the air and generally, only travel shorter distances.
- Some infectious agents transmitted by droplet route can also be significantly transmitted by contact mode.

Agents transmitted through droplets

- Diphtheria (pharyngeal)
- Haemophilus influenza type b (pneumonia, meningitis)
- Neisseria meningitidis-meningitis, sepsis, pneumonia
- Pertussis (whooping cough)
- Pneumonic plague
- Mycoplasma pneumoniae
- Streptococcal (group A) pharyngitis
- Influenza viruses, seasonal
- SARS-CoV2 (COVID-19)
- Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, Crimean Congo Fever viruses
- Other viruses: Mumps, Parvovirus B19, Rhinovirus, Rubella, Adenovirus

Infection control measures

The following infection control measures should be applied in addition to standard precautions.

1. Hand Hygiene-Droplet transmission is also associated with contact transmission (as discussed earlier). Therefore, hand hygiene is an important component of droplet precautions.

2. PPE-HCWs should wear a surgical mask when close contact (<3 feet) with the patient is anticipated and also upon room entry.

   * Patients should wear a surgical mask (all the time) + HCWs should wear protective eyewear if there is a risk of splashes or spray to the eye/face. Gown and gloves should also be worn to prevent contact transmission

   * The primary function of the surgical mask is for 'source control';

   * The secondary function of the surgical mask is to protect the person wearing it from larger droplets in the environment

3. Respiratory Hygiene/Cough Etiquette
   The following measures are recommended for all individuals with respiratory symptoms
   - Directly coughing or sneezing on hands or rubbing the nose should be strictly avoided
   - Mouth and nose should be covered with a tissue when coughing or sneezing. Tissues should be disposed into the yellow waste bins after use
   - If no tissues are available, coughing or sneezing can be done into the inner elbow (sleeves), turning away from other patients
   - Hand hygiene should be performed after having contact with respiratory secretions
   - Contaminated hands should be kept away from the mucous membranes of the eyes
   - In outpatient settings, patients with respiratory symptoms should be segregated separately, and provided with masks, and attending the cases must be fast-tracked
   - Social distancing: Individuals with respiratory symptoms should always maintain a distance of at least 1 meter from others.
   - Avoid touching eyes, nose and mouth (T-zone) with unaided hands

4. Patient Placement
   A single room is preferred for patients who require droplet precautions. If is not available, alternative placement options can be looked for similar to contact precautions such as cohorting, spatial separation of >3 feet, and drawing the curtain between patient beds.

5. Transfer of Patients
   Transfer of patients on droplet precautions should be limited as there is a high-risk of transmission. If unavoidable, then the following precautions should be undertaken.
   - The patient should wear a surgical mask while they are being transferred
   - Patients should follow respiratory hygiene and cough etiquette
   - HCW transporting the patient should wear surgical mask, gloves, gown and protective eyewear.

6. Disinfection of the Rooms
   Patient-care items, bedside equipment, frequently touched surfaces area and environmental surfaces should be cleaned daily with appropriate disinfectants according to the hospital policy

Airborne precautions

Airborne precautions when used in addition to standard precautions are intended to prevent the spread of infectious agents that are transmitted through respiratory aerosols. Aerosols are small-particles (<5um) generated by an infectious person during coughing, sneezing, talking or performing certain aerosol-generating procedures (e.g. intubation). These smaller droplets remain suspended in air for long periods and may disperse to a distant place along with the air current.

Agents Transmitted Through Aerosols

- Mycobacterium tuberculosis
- Measles virus
- Varicella (chickenpox and zoster)
- Smallpox (variola) and monkeypox virus
- Aerosolizable spore-containing powders such as Bacillus anthracis
- Aspergillus (pulmonary Aspergillosis)

Aerosol-generating Procedures (AGPS)

AGPs are procedures that can generate much higher concentrations of aerosols as compared to coughing, sneezing, or speaking and are associated with a higher risk of pathogen transmission.

* Therefore, it is recommended to follow airborne precautions such as isolating the patient in a negative pressure room and wearing appropriate PPEs like an N95 respirator

* Examples of AGPs include Endotracheal intubation, open respiratory and airway suctioning, tracheostomy care, cardiopulmonary resuscitation, sputum induction, and bronchoscopy.

Infection control measures

1. PPE
   While giving care to a patient with airborne precaution, the HCPs must wear an N95 or higher level respirator. The HCP must perform fit checking every time before donning the N95 respirator to ensure it is properly applied. Gloves, gowns and protective eyewear may be needed if the exposure risk is likely to be present.
2. Patient Placement
   Patients should be placed in an airborne infection isolation room (AIIR). The components of AIIR include adequate ventilation, ultraviolet germicidal irradiation (UVGI), and filtration.
3. Ventilation
   Ventilation can reduce the risk of infection through dilution and removal of room air containing infectious aerosols by the introduction of clean or fresh air into the room, either by natural or mechanical ventilation.

Natural Ventilation

Natural ventilation refers to the fresh air that enters and leaves a room through openings such as windows or doors.

- The effect of natural ventilation is maximized when the door and windows are placed at opposite to each other and are kept open to maintain airflow at all times

- Mechanical Ventilation (Negative-pressure Room)
  Negative-pressure room includes a mechanical ventilation system that maintains the pressure of the room slightly lesser than the pressure of the entry area (i.e. creating a "negative pressure"), so that it allows air to flow into the isolation room but not escape from the room, as air naturally flows from areas with higher pressure to the areas with lower pressure, thereby preventing contaminated air from escaping the room. The negative pressure room should have the following properties:
  - Air changes per hour (ACH):A minimum of 12 ACH should take place in the high-risk area, compared to 6 ACH per hour in a low-risk area for airborne transmission. High-risk areas include TB/chest department (outpatient and inpatient), bronchoscopy procedure rooms, MDR-TB wards, and clinics, airborne precaution rooms
  - Negative pressure differential between airflow from adjacent spaces to the patient room should be >2.5 Pascal
  - Door should be kept closed at all times
  - Anteroom: The negative pressure room should be preceded by an anteroom (a small outer waiting room that proceeds to the patient room).

4. Ultraviolet Germicidal Irradiation (UVGI)
   If adequate ventilation is not possible, ultraviolet germicidal irradiation (UVGI) devices can be used as in addition to negative pressure ventilation. UVGI kills the organisms by irradiating them. UVGI can be wall-mounted and should be installed at a higher level than (>8 feet from the floor) so that it will not directly irradiate patients.

5. Filtration
   The room air is directly exhausted to the outside through an exhaust fan or through HEPA (high-efficiency particulate air) filtration. Exhaust fans must be properly installed closely fitting to the window

6. Transfer of Patients
   The patient on airborne precaution should be transferred outside the negative pressure room only when it is necessary. In such a case, the following measures should be undertaken.
   - The patient should wear a surgical mask and follow respiratory hygiene and cough etiquette
   - Any skin lesions associated with the condition (e.g. chickenpox) should be covered
   - The HCP must wear an N95 respirator and other PPEs as indicated.

7. Respiratory Hygiene and Cough Etiquette
   Patients must be explained in detail about cough hygiene as described under droplet precautions

8. Visitors and Staff
   Entry of the visitors and staff should be restricted or they should wear PPE before entry into the room. The staff who are immune to the specific airborne disease (e.g. chickenpox) should preferably be posted in the airborne precaution room whenever possible.

Table summarizing activities in different types of precautions

Activity	Standard precautions	Airborne Transmission	Droplet transmission	Contact transmission
Single room	no	Yes, door closed	yes	Yes, if possible cohort the patient with same infection
Hand washing	yes	yes	yes	yes
Gloves	For body surfaces	For body surfaces	For body surfaces	yes
Gown	If soiling likely	If soiling likely	If soiling likely	If more contact expected
Mask	Only if splash expected	N 95 mask	Surgical mask for H1N1	Only if splash expected
Goggles	Only if splash expected	Only if splash expected	Only if splash expected	Only if splash expected
Other precautions	Do not touch surfaces with gloves		3 feet distance between patients in cohort	Remove gloves, gown before leaving room

Case scenario (contact Precautions)

A 70-year-old woman after total knee replacement surgery, is transferred to post-operative ward. Four days later she developed erythema and pus discharge at the wound site. A wound swab sent for culture shows the growth of MRSA, sensitive to vancomycin and Linezolid. Total of 10 patients are housed in the same ward and only two nurses are posted. Hand rub is available only at the entrance and at the nursing station. There is only one stethoscope, Blood pressure (BP) apparatus, and thermometer in the ward. It is a practice in the ward to use the same gloves continuously, due to a shortage of supply. After 2 days, another patient following appendectomy develops discharge from the wound site, and MRSA has grown on culture.

- Identify the risk of transmission and the type of transmission-based precaution applicable.

Explanation

A cluster of cases of surgical site infection occurred with MRSA infection occurred with MRSA infection which resulted from a lack of standard and contact precautions.

- Inadequate staffing
- Inaccessibility to hand rub- Hand rubs are available only at the entrance and nursing station but not at the bedside.
- No patient dedicated equipment-There was only one stethoscope apparatus and thermometer, etc.in the ward.
- Inappropriate use of gloves -HCWs are using the same gloves in multiple occasions, without changing them when indicated.
- Patient placement is not followed-Patient isolation and cohorts are not followed.

Case scenario (Droplet Precautions)

A cluster of cases of upper respiratory tract infection (URTI) occurred in a long-term care facility, following a group activity held in a common food area of the hospital. All cases who attended the group activity had food and sat close to each other at the dining table. One of the individuals who attended the group activity had already suffered from URTI for four days. Due to the lack of waste bins in the dining room, used tissues were placed on the dining room tables. The shared bathrooms were far from the dining area; therefore, hand hygiene was not performed during the event. Eight individuals reported, symptoms consistent with influenza, which was later confirmed by the molecular test.

- Identify the risk of transmission and the type of transmission-based precaution applicable.
  Explanation
- A cluster of influenza (URTI) cases occurred due to a lack of droplet precautions. The factors that promoted the spread of infection include:
- Overcrowding:
- Lack of droplet precaution by the index case: The index case did not follow any measures of droplet precaution such as wearing a surgical mask, hand hygiene, etc. He should not have attended any group activity when suffering from URTI.
- Inappropriate respiratory hygiene: Due to the lack of waste bins in the dining room, used tissues were placed on the dining room tables.
- Inadequate hand hygiene due to the hand hygiene facility being far away from the dining area.

Prevention of device-associated infections

The majority of device-associated infections (DAIs) encountered in hospitals are CAUTI, CLABSI, and VAP

◆ The presence of the device itself is a major risk factor for developing such an infection. This is because of various reasons:

- Risk of the introduction of patients' own flora
- Risk of introduction of HCW's hand flora due to improper handling during insertion or daily maintenance of the device
- Ability of the invading organism to produce biofilm over the device.

◆ Strict aseptic techniques must be followed during the insertion and daily maintenance of the devices

❖ The preventive measures for each of the DAIs grouped as care bundle approach

Care bundle approach for different types of DAI

Healthcare facilities must adhere to a care bundle approach for the prevention of DAIs.

- Care bundle comprises of 3 to 5 evidence-based elements with strong clinician agreement; each of the component must be followed during the insertion or maintenance of the device
- Compliance to the care bundle is calculated as all or-none way, i.e. failure of compliance to any of the component leads to non-compliance to the whole bundle

The components of care bundle approach for prevention of DAIs have been described in in the following table

Care bundle for urinary catheter

Insertion bundle:

1. Catheter should be inserted only when appropriate indication is present (e.g. acute urinary retention)
2. Only the sterile items are used for insertion of catheter 3. Catheter is inserted by non-touch technique with strict asepsis
4. Closed drainage system must be used
5. Catheter of appropriate size must be used
6. Catheter must be properly secured after placement (by plaster-tube-plaster technique)

Maintenance bundle:

1. Daily catheter care (vaginal or meatal care) must be given regularly and by strict aseptic measures such as hand hygiene and single use gloves
2. Catheter is properly secured all the time
3. Drainage bag must be always above the floor and below the bladder level 4. Closed drainage system is used all the time
5. While collection of urine from bag, the following steps must be followed- Hand hygiene, change of gloves between patients; use of separate jug for each bag, use of alcohol swabs for disinfection of outlet
6. Daily assessment of readiness for removal of catheter must be documented

Care bundle for central line

Insertion bundle:

1. Hand hygiene before and after insertion of central line 2. Use maximum sterile PPE: gloves, gown, drapes, cap, and mask 3. Site of insertion-Subclavian preferred, avoid femoral 4. Skin preparation by

antiseptics such as chlorhexidine 5. Skin must be completely dry after use of antiseptics 6. Use semi-permeable dressing

7. Document data and time of insertion ←——— এই লাইনটার নাম্বার ৭ নং হলো কীভাবে; কারণ এর আগেরটার নাম্বার ১

Maintenance bundle

1. Daily aseptic central line care during handling:
   - Hand hygiene must be performed
   > Hub decontamination by alcohol
2. Daily documentation of local signs of infection
3. Change of dressing with 2% chlorhexidine
4. Daily assessment of readiness for removal of the central line must be documented

Maintenance care bundle for mechanical ventilator

1. Adherence to hand hygiene
2. Elevation of the head of the bed to 30-45°-this is to prevent oropharyngeal aspiration to the respiratory tract
3. Daily oral care with chlorhexidine 2% solution
4. Need for PUD (peptic ulcer disease) prophylaxis should be assessed daily; if needed only sucralfate should be used
5. DVT (deep vein thrombosis) prophylaxis should be provided if needed
6. Daily assessment of readiness to remove mechanical ventilator must be documented

The sterilization and disinfection

The sterilization and disinfection practices in a hospital are of paramount importance in preventing transmission of healthcare-associated infections.

Definitions

Sterilization, disinfection, and cleaning are three separate but interrelated terminologies, all aiming at removing or destroying microorganisms from materials or body surfaces. However, they vary in their efficacy of destroying the microorganisms

Sterilization is a process by which all living microorganisms including viable spores, are either destroyed or removed from an article, surface, or medium.

Disinfection: It refers to a process that destroys or removes most if not all pathogenic organisms but may or may not destroy bacterial spores

Level of sterilant/ disinfectants according to their microbicidal action.

Level of Disinfectant/sterilant	Bacterial spores	Tubercle bacilli	Non-enveloped viruses	Fungi	Vegetative bacteria	Enveloped viruses
Sterilant	Yes	Yes	Yes	Yes	Yes	Yes
Disinfectant						
High level	+/-	Yes	Yes	Yes	Yes	Yes
Intermediate level	No	Yes	Yes	Yes	Yes	Yes
Low level	No	No	+/-	+/-	Yes	Yes

Type of Disinfectants

Depending upon their efficacy, the disinfectants are further classified into three categories.

- High-level disinfectants (HILD) are capable of killing bacterial spores when used in sufficient concentration under suitable conditions. They can kill all other microorganisms
- Intermediate-level disinfectants (ILD) destroy all microorganisms, but not bacterial spores
- Low-level disinfectants (LLD) destroy vegetative bacteria and enveloped viruses; variable action on non-enveloped viruses, and fungi, but no action on tubercle bacilli and spores.
  Note: Antiseptics are a type of disinfectants that are safe to apply on body surfaces (skin and mucosa) destroying organisms present on the body surfaces. This type of disinfection is termed asepsis.

Cleaning (Decontamination)

Cleaning refers to the reduction in the pathogenic microbial population to a level at which items are considered safe without protective attire

❖ Results in reduction of at least 2^1 log CFU of most of the microorganisms but not spores

❖ Achieved by manual or mechanical cleaning with soap and detergents to eliminate debris or organic matter from the medical devices or surfaces

Agents used in the Hospital for Achieving Sterilization, Disinfection and Cleaning

Agents	Physical methods	Chemical methods
Sterilants		
Agents of sterilization	* Steam sterilizer (autoclave) * Dry heat sterilizer (hot air oven) * Filtration * Radiation: Ionizing and non-ionizing (infrared) *Others: Incineration, microwave	* Ethylene oxide (ETO) sterilizer * Plasma sterilizer
Disinfectants		
High-level disinfectants (HLD)	No physical methods in this category	*Aldehydes-glutaraldehyde, orthophthaldehyde, formaldehyde * Peracetic acid * Hydrogen peroxide
Intermediate-level disinfectants (ILD)	*Heat-based methods: Pasteurization, boiling and steaming * Ultraviolet (non-ionizing) radiation	* Alcohols-ethyl alcohol and isopropyl alcohol * Phenolics-phenol, cresol, Lysol * Halogens-iodine and chlorine
Low-level disinfectants (LLD)	No physical methods in this category	* Quaternary ammonium compound (QAC) * Chlorhexidine
Cleaning		
Agents of cleaning	Automated washers such as ultrasonic washers, washer-disinfectors, and automated cart washers	* Enzymatic solution * Detergent * Soap (antimicrobial or plain soap)

Central Sterile Supply Department (CSSD)

CSSD is an integrated place in hospitals that performs sterilization of medical devices, equipment, and consumables; that are used in the operating theater (OT) of the hospital and also for other aseptic procedures.

The processing area of CSSD consists of four unidirectional zones starting from an unsterile area to a sterile area separated by a physical barrier.

Decontamination area →→ Packaging area →→ Sterilization area →Sterile storage area

1. Decontamination area: The items are collected and then decontaminated/cleaned by either manual wash or by automated machines (ultrasonic washer and washer-disinfector)
2. Packaging area: Here, the items (medical devices) are enclosed in materials or a container designed to allow the penetration and removal of the sterilant during sterilization and then to protect the device from contamination and other damage following sterilization and until the time of use.
3. Sterilization area: The packed medical devices received from the packaging area are subjected to a sterilization process by steam sterilizer, ethylene oxide sterilizer (ETO), or plasma sterilizer
4. Sterile storage area: After sterilization the sterilized items are stored in this area, It has an issue counter to supply the items to OTs and various other areas of the hospital.

Factors Influencing the Efficacy of Sterilant/Disinfectant

The efficiency of a sterilant/disinfectant is affected by various factors:

- Organism load: As the bio-burden increases the contact time of the disinfectant also needs to be increased
- Nature of organisms: Organisms vary greatly in their resistance to disinfectants and sterilants
- Concentration: The agents should be used at their optimal concentration to produce the desired antimicrobial action. Higher concentrations may corrode the material and lower concentrations may be less effective
- Contact time: It is the most crucial factor for a disinfectant to be effective. It refers to the period, a disinfectant is in direct contact with the surface or item to be disinfected. For surface disinfection, this period is framed by the application to the surface until complete drying has occurred. Lower exposure time doesn't achieve effective killing

- Temperature: The activity of most agents increases as the temperature increases. However, inappropriate higher temperatures may degrade the agent
- Stability: Some agents are unstable at in-use concentration, e.g. hypochlorite, and should be freshly prepared each day
- Local pH: The pH influences the antimicrobial activity. An increase in pH improves the antimicrobial activity of some disinfectants (e.g. glutaraldehyde, quaternary ammonium compound, or QAC) but decreases the antimicrobial activity of others (e.g. phenols, 2 hypochlorite, and iodine)
- Relative humidity is an important factor influencing the activity of gaseous disinfectants such as ethylene oxide (ETO)
- Organic matter such as pus, serum, blood, and stool can interfere with the antimicrobial activity of some disinfectants (e.g., hypochlorite and QAC)
  - This can be overcome by (i) mechanically cleaning the instrument or surface/floor before it is subjected to disinfection/sterilization and (ii) increasing in exposure time or concentration of the agent
  - However, few other disinfectants such as phenolic or glutaraldehyde retain their efficacy in the presence of organic matter.
- Biofilm: Formation of biofilm is another mechanism that prevents the entry of disinfectant/sterilant to act on the microorganisms that are embedded inside the biofilm.

Property of an Ideal Sterilant/Disinfectant

An ideal disinfectant/sterilant should have various properties-(i) broader microbicidal activity, (ii) fast acting, (iii) not affected by environmental factors such as organic matter, (iv) nontoxic, (v) compatible with surfaces/materials to which it is used, (vi) odorless or pleasant odor, (vii) economical and (viii) environmentally friendly.

Spaulding's Classification of Medical Devices

Earle H. Spaulding in 1971 devised a rational approach to classify medical devices into three categories according to the degree of risk for infection involved in the use of the items \

Table showing Spaulding's classification of medical devices

Risk category	Definition	Recommended method	Examples
Critical device (high risk)	Items that enter a normally sterile site	Sterilization	Surgical instruments, implants/prostheses, needles, Cardiac and Urinary catheters Invasive rigid endoscope
Semi-critical device (intermediate risk)	Items in contact with mucous membranes or body fluids,	Disinfection (HLD)	Respiratory therapy equipment, noninvasive flexible endoscopes, Anaesthesia equipment, Endotracheal tubes Bronchoscopes, Vaginal probes Vaginal specula, Cystoscope
Non-critical (Low-risk)	Items in contact with intact skin	Disinfection (ILD or LLD)	Noncritical patient items Bed pans, BP cuff, stethoscope, thermometer

Environmental Cleaning

Environmental cleaning of floor and surface of hospitals play a vital role in controlling the spread of infections.

General principles of environmental cleaning:

- Cleaning followed by disinfections-
  - Cleaning: Always cleaning with a detergent is performed first, before applying disinfectant.
  - Disinfection: CDC recommends to use low to intermediate-level disinfectants for environmental cleaning such as QAC, hypochlorite and improved hydrogen peroxide.
- Cleaning sequence
  - Cleaner to dirtier: The cleaner areas are cleaned first, followed by the dirtier areas.
  - High to low: Top area should be cleaned first, then proceed towards bottom.
  - Inward to outwards
- Frequency of cleaning depends upon: Probability of contamination, Vulnerability of population to infection, Frequency of hand contact
- Frequency of cleaning for common situations:
  - Non-critical surfaces and floors - 2–3 times a day
  - Mattress used for patients - cleaned weekly and after discharge
  - Doors, windows, walls and ceiling - once a month and spot-cleaning when soiled
  - High touch areas - every 3-4 hours

Disinfection of Operation Theatre: Environmental cleaning in operation theatre(OT) minimizes patients 'and HCPs' exposure to potentially infectious microorganisms.

Surface disinfection: Cleaning with a cleansing agent, followed by disinfection by using aldehyde-based disinfectant. Disinfection of OT is carried out in the following situations

- First cleaning of the day (before cases begin)
- In between cases (cleaning 3 to 4 feet perimeter around the OT table)
- Terminal cleaning of OT after the last case
- Detailed wash-down of the OT complex once a week
- During renovation or construction of OT or nearby places

Fogging (aerial disinfection):

- Spraying of a disinfectant (e.g., glutaraldehyde$_2O_2$ or QAC based product) with the help of a fogger machine.

A. Fogging of operation theatre B. Fogger machine

Hospital Waste Management/Biomedical Waste Management (BMW)

The waste generated from the hospital carries a higher potential for infections and injuries. Therefore it is essential to have safe and reliable methods of segregation and disposal of hospital waste.
In developing countries, the waste generated falls into two categories:

- General (non-hazardous solid waste, 80%)
- Biomedical waste: includes infectious waste (10%) and chemical/radioactive waste (5%)

Hospital waste requires management at every step from generation, segregation, collection, transportation, storage, and treatment to final disposal. The waste is monitored by the Infection Control Team during rounds. Segregation is the key to this waste management scheme. Proper segregation should identify waste according to source and type of disposal, and disinfection and keep separate bins specifically suited for each waste. With proper segregation at the source, a hospital can reduce-

1. Total Treatment cost
2. The impact of the waste on the surrounding environment
3. The chance of infecting waste handlers.

Sl	Waste Category	Color coding	Container
1	General Waste (WET)- Food waste, fruit & vegetable peelings		Black Bin and Black bag
	General Waste (DRY) - Water cups, Paper, plastic wrappers, tea cups, paper boxes, etc.		Black Bin and Black bag
2	Infected Waste - Dressing pads, disposable Caps, Masks, Gowns, & Shoe covers, Cotton, Gauze pieces, Pads, etc.		Yellow bin and yellow bag
3	Anatomical wastes (parts of the human body)		Yellow bag
4	Sharp Waste - All Metallic sharps (Needles, scalpels, Razors, etc.) Glass waste - Glass vials, Glass bottles, Ampules, Slides, Broken glasses, etc.)		Puncture proof can (Fill 1% Hypochlorite solution before sending from ward when it is 3/4th full) or red bin
5	Liquid waste		Blue Bowl
6	Cytotoxic Waste (Chemo medicines) - All items contaminated with cytotoxic drugs.		Yellow Bag with Cytotoxic Symbol

The CORRECT way to tie the bag

Always were gloves | **Bag shouldn't be more than ½ full** | **Twist the top** | **Tie a knot**

Isolation Precaution for some Conditions

INFECTIOUS DISEASES AND THEIR ISOLATION PROCEDURES			
Type of Precautions, A = Airborne, C = Contact, D = Droplet, S = Standard			
Disease	Infective material	Isolation/ precautions	Infectivity
Amoebiasis	Feces	S	Until stool negative on microscopy
Chickenpox (Varicella)	Respiratory secretions and skin lesions	A, C inform the Infection Control team	2 days before the start of the eruption until all lesions are crusted.
Cholera	Feces	C	Duration of diarrhea

INFECTIOUS DISEASES AND THEIR ISOLATION PROCEDURES			
Type of Precautions, A = Airborne, C = Contact, D = Droplet, S = Standard			
Disease	Infective material	Isolation/ precautio	Infectivity
Clostridium difficile, Antibiotic-associated colitis	Feces	C	Duration of diarrhea
Diarrhea presumed infective	Feces	C	Duration of diarrhea
Diphtheria cutaneous	Lesions secretions	C	Duration of lesions. Until off antimicrobial treatment and culture negative, (2 cultures taken 24 hours apart negative).
Dengue fever		S	
Diphtheria Pharyngeal	Respiratory secretion	D	Until 3 consecutive nose and throat swabs are negative. Until off antimicrobial treatment and culture negative, (2 cultures taken 24 hours apart negative).

Encephalitis viral	Nasal and throat secretion	C	First few days of Illness
Group A Streptococcal Infection	Respiratory secretion Or purulent exudate	C	Until 24 hours after the start of effective antibiotic therapy
Gonococcal Ophthalmia neonatorum	Discharge	S	Until 24 hours of antibiotic therapy
Hepatitis A	Faeces	C	First 7 days of illness. Maintain contact precautions in children <3 years of age for the duration of hospitalization. 3-14 years of age: 2 weeks after onset of symptoms. >14 years: One week after onset of symptoms.
Hepatitis-B Hepatitis C	Blood and body fluids	S	Isolation is required only if patients are bleeding or likely to bleed.
HCV	Blood and body fluids	S	Standard precautions and Isolation
H1N1	Respiratory secretions	A&S	Duration of illness
Herpes simplex severe infection	Lesions secretions	C	Until lesions are dry and crusted.
Herpes Zoster (Shingles)	Lesions secretions	C	Until the vesicles have crusted.
Influenza	Respiratory secretion	D	Duration of illness
Lice (Head/body)	Hair/clothing	C	Until 24 hours after treatment
Measles	Respiratory secretions	A	4 days before rash to 5 days after rash.
Meningitis 1. Meningococcal 2. Haemophilus	Respiratory secretions	D, S	Until 48 hours after effective antibiotic treatment.
Meningitis (viral)	Oral secretions feces	D	Duration of illness
Mumps, Poliomyelitis	Oral secretions feces	D	Duration of illness

INFECTIOUS DISEASES AND THEIR ISOLATION PROCEDURES			
Type of Precautions, A = Airborne, C = Contact, D = Droplet, S = Standard			
Disease	Infective material	Isolation/ precautio	Infectivity
Multi-drug resistant organisms: 1. Gram negative bacilli resistant to Gentamicin 2. MRSA 3. Pneumococcus resistant to Penicillin	Multiple infective sites	1. C 2. C 3. D	Until infected sites are bacteriologically negative.
Mumps parotitis	Oral secretions	D	Until 9 days after the onset of parotid swelling
Pertussis (whooping cough)	Respiratory secretions	D	Until one week after the start of treatment.
Plague		Strict isolation	

Link for Demonstration:

For donning and doffing - https://youtu.be/1xy00pLT9M4?si=GhIBAyhnZ0rHwLe2

For Hand rub- https://youtu.be/ZnSjFr6J9HI?si=zD0gcQqiOH6fl6lH

For Hand wash- https://youtu.be/IisgnbMfKvI?si=-SsZtFrHd-mF_iVM

Assessment Plan:

1. Case study
2. Hand rub/Hand washing Check List
3. Hand hygiene compliance by Hand hygiene audit form
4. Donning and doffing of PPE

Hand rub/Hand washing Check List

Action criteria	Action performed correctly Yes/No	Comments Competent/ Not Yet Competent
1. Apply hand rub/Wet hands with water and apply hand wash product (soap)		
2 Rub hands palm to palm.		
3 Right palm over left dorsum with interlaced fingers and vice versa.		
4. Palm to palm with fingers interlaced.		
5 Backs of fingers on palms with fingers interlocked (Both side)		
6 Rotational rubbing of left thumb clasped in right palm and vice versa.		
7. Scrub nails on palms (both side).		
8. Rinse hands with water.		
9. Dry with a single-use paper towel.		
10. Close the tap with same paper towel (if not hands-free tap).		
NOTE: Hand rub steps 1to7 (20-30 min): Hand wash steps1 to 10 (40 – 60 seconds)		

WHO Hand Hygiene Observation Form

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES — Clean Your Hands

Observation Form

Facility:		**Period Number*:**		**Session Number*:**	
Service:		**Date:** (dd/mm/yy)	/ /	**Observer:** (initials)	
Ward:		**Start/End time:** (hh:mm)	: / :	**Page N°:**	
Department:		**Session duration:** (mm)		**City**:**	
Country:**					

Prof.cat			Prof.cat			Prof.cat			Prof.cat		
Code			Code			Code			Code		
N°			N°			N°			N°		
Opp.	**Indication**	**HH Action**	**Opp.**	**Indication**	**HH Action**	**Opp.**	**Indication**	**HH Action**	**Opp.**	**Indication**	**HH Action**
1	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	1	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	1	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	1	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
2	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	2	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	2	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	2	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
3	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	3	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	3	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	3	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
4	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	4	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	4	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	4	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
5	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	5	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	5	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	5	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
6	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	6	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	6	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	6	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
7	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	7	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	7	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	7	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves
8	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	8	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	8	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves	8	☐ bef-pat. ☐ bef-asept. ☐ aft-b.f. ☐ aft-pat. ☐ aft.p.surr.	☐ HR ☐ HW ○ missed ○ gloves

References

1. Apurba S.Essentials of Hospital Infection Control; Jaypee
2. Apurba S. Essentials of Medical Microbiology.3rd edition.Jaypee
3. Damani N. Manual of infection prevention and control. United Kingdom: OUPOXford:2011
4. World Health Organization. Guideline on core components of infection prevention and control program at the national and acute health care facility level. World Health Organization;2016
5. World Health Organization.Guideline.WHO guidelines on hand hygiene in healthcare: a summary. Geneva: WHO:2009
6. Centers for Disease Control and Prevention. (2017). Transmission Based Precautions
7. Biomedical waste management rules 2018

Topic 16: White coat ceremony

Md. Mahfuzer Rahman; S.M Rahenur Mondol (Apple)

Outline	
Topic	*White coat ceremony*
Learning objectives	At the end of the session, students will be able to • *State the ethical codes of BMDC for doctors* • *State international code of medical ethics* • *State declaration of Geneva* • *Take oath (Hippocratic oath)*
List of contents	• *Ethical codes of BMDC for doctors* • *International code of medical ethics* • *Declaration of Geneva* • *Oath taking (Hippocratic oath)*
Method	• Interactive lecture • Seminar
Time	• One and a half hour

- বিগত ১০০ বছরেরও বেশি সময় ধরে সাদা অ্যাপ্রন (হোয়াইট কোট) চিকিৎসকদের প্রধান প্রতীক হিসেবে ব্যবহৃত হয়ে আসছে।
- উনবিংশ শতাব্দীর শেষ ভাগের আগে চিকিৎসকেরা সাদা নয় বরং কালো পোশাক পরতেন।
- উনবিংশ শতাব্দীর শেষ পর্যন্ত চিকিৎসকেরা কালো পোশাক পরতেন এবং তাঁদের প্রতিকৃতিতেও কালো পোশাকেই চিত্রিত করা হতো।
- উনবিংশ শতাব্দীর শেষ পর্যন্ত চিকিৎসা পরামর্শ নেওয়া সাধারণত মানুষের শেষ আশ্রয় হিসেবে বিবেচিত হতো এবং প্রায়ই মৃত্যুর পূর্বাভাস হিসেবে দেখা দিত। তাই চিকিৎসকদের গাঢ় রঙের পোশাক পরার সম্ভাব্য একটি কারণ এটি হতে পারে।
- ১৮০০ সালের শেষ তৃতীয়াংশ পর্যন্ত কোনো চিকিৎসকের সাথে সাক্ষাৎ সাধারণত রোগীর তেমন উপকারে আসত না।

চিকিৎসকেরা তাদের সাদা কোট গ্রহণ করেছিলেন পরীক্ষাগারের বিজ্ঞানীদের কাছ থেকে।

- ১৯শ শতাব্দীর মধ্যভাগের আগে কেবলমাত্র পরীক্ষাগারে কাজ করা বিজ্ঞানীরাই ল্যাব কোট পরতেন, যা ছিল বেইজ রঙের (হালকা গোলাপি-হলদেটে আভাযুক্ত)।
- ১৯শ শতাব্দীর মধ্যভাগে ল্যাবরেটরি বিজ্ঞানীরা বৈজ্ঞানিক অনুসন্ধানের মাধ্যমে দেখাতে সক্ষম হন যে চিকিৎসাবিদ্যায় প্রচলিত অনেক "চিকিৎসা পদ্ধতি" কার্যত কোনো ফলই দিত না। এর ফলে চিকিৎসাবিদ্যার (চিকিৎসকদের) মর্যাদা ক্ষুণ্ন হয় এবং সে সময়ের বহু চিকিৎসককে কার্যত ভণ্ড (quack) হিসেবে বিবেচনা করা হতো।.
- সেই সময়ে সাধারণমানুষ ও শাসকরা বিজ্ঞানীদের সম্মান করতেন, কিন্তু চিকিৎসকদের প্রতি ছিল অবিশ্বাস। তাই চিকিৎসা-পেশা নিজেদের মর্যাদা ফিরিয়ে আনতে বিজ্ঞানের দিকে ঝুঁকে পড়ে।
- ফলে চিকিৎসকেরা সিদ্ধান্ত নিলেন নিজেদের বিজ্ঞানী হিসেবে গড়ে তোলার।

- অবশেষে মনে করা হয়েছিল যে, ল্যাবরেটরিগুলি নতুন আবিষ্কার তৈরি করতে পারে যা রোগ নিরাময়ে গুরুত্বপূর্ণ অগ্রগতি প্রদান করবে।

- চিকিৎসকরা নিজেদেরকে বিজ্ঞানী হিসেবে উপস্থাপন করার জন্য বৈজ্ঞানিক ল্যাব কোটকে তাদের পোশাকের মানক হিসেবে গ্রহণ করলেন।
- এবং ১৮৮৯ খ্রিষ্টাব্দে চিকিৎসকরা সবচেয়ে পরিচিত বৈজ্ঞানিক প্রতীক, ল্যাবরেটরি কোট, পরা শুরু করেন।
- যখন চিকিৎসা পেশায় ল্যাব কোট (যা মূলত বেইজ রঙের) গ্রহণ করা হয় তখন চিকিৎসকরা তাদের কোটের রঙ সাদা রাখার পছন্দ করেন।

আধুনিক সাদা কোট চিকিৎসা ক্ষেত্রে কানাডায় পরিচয় করান ডা. জর্জ আর্মস্ট্রং (১৮৫৫–১৯৩৩), যিনি মন্ট্রিয়াল জেনারেল হাসপাতালের একজন শল্যচিকিৎসক এবং কানাডিয়ান মেডিকেল অ্যাসোসিয়েশনের সভাপতি ছিলেন।.

১৯শ শতাব্দীর শেষ এবং ২০শ শতাব্দীর শুরুতে, যখন চিকিৎসা সত্যিকার অর্থে বৈজ্ঞানিক পেশায় রূপান্তরিত হয় তখন চিকিৎসার "শুদ্ধতা" বা "শুভ্রতা" চিকিৎসকদের পোশাকেও প্রতিফলিত হতে শুরু করে।

ডাক্তাররা কেন সাদা কোট পরেন তা বোঝার জন্য কয়েকটি মূল কারণ রয়েছে:

- রোগী, নার্স এবং অন্যান্য চিকিৎসকদের দ্বারা দ্রুত সনাক্তকরণ সম্ভব হয়।
- স্টেথোস্কোপের মতো জিনিসপত্র বহনের জন্য বড় পকেট থাকে।
- পোশাককে দাগ বা ময়লা থেকে রক্ষা করে।
- চিকিৎসক হিসেবে মর্যাদা বা অবস্থানের উপর জোর দেয়।
- চিকিৎসকদের প্রতি সামাজিক প্রত্যাশা মেনে চলতে সাহায্য করে।
- পরিবেশ এবং রোগী থেকে সংক্রমণ বা দূষণ থেকে নিজেকে রক্ষা করে।
- পরিচ্ছন্নতার ছাপ বা ধারণা প্রচার করে।
- নিজের থেকে রোগীদের সংক্রমণ বা দূষণ থেকে রক্ষা করে।
- প্রায়শই ঠান্ডা হাসপাতালে শরীরের উষ্ণতা বজায় রাখে।
- মনস্তাত্ত্বিক একটি বাধা সৃষ্টি করে, ফলে সহজে যোগাযোগ করা যায় না।

সাদা কোটের অনুষ্ঠান (White Coat Ceremony)-এর ইতিহাস:

- সাদা কোটের অনুষ্ঠান মেডিকেল শিক্ষার্থীদের জন্য একটি রাইড অফ প্যাসেজ (rite of passage), অর্থাৎ পেশাগত জীবনে প্রবেশের প্রতীকী ও গুরুত্বপূর্ণ অনুষ্ঠান। এটি শিক্ষার্থীদেরকে আনুষ্ঠানিকভাবে চিকিৎসা পেশায় স্বাগত জানায় এবং তাদের মধ্যে পেশাদারিত্ব, নৈতিকতা এবং রোগীর প্রতি দায়িত্ববোধের চেতনা জাগ্রত করে।
- সাদা কোটের অনুষ্ঠানটি ১৯৯৩ সালে আর্নল্ড পি. গোল্ড ফাউন্ডেশন দ্বারা প্রতিষ্ঠিত হয়।
- অনুষ্ঠানের সময় প্রতিটি শিক্ষার্থীর কাঁধে সাদা কোট পরানো হয় এবং প্রায়শই হিপোক্রেটিক শপথ (Hippocratic Oath) পাঠ করা হয় যা তাদের চিকিৎসা পেশায় প্রবেশের প্রতীক হিসেবে গণ্য হয়।
- এটি প্রায়শই পেশাদারিত্বের প্রতীক হিসেবে দেখা হয় এবং ভবিষ্যৎ চিকিৎসকের উপর ন্যস্ত ভারী দায়িত্বের গুরুত্বকে প্রকাশ করে।
- সাদা কোট প্রায়শই নতুন শিক্ষার্থীদের চিকিৎসা স্কুলে প্রবেশের প্রথম দিনে একটি অনুষ্ঠানের মাধ্যমে প্রদান করা হয়।

White Coat Ceremony

১৯৯৩ সালে ডা. আর্নল্ড পি. গোল্ড, একজন শিক্ষক ও শিশুর স্নায়ুবিশেষজ্ঞ, কলম্বিয়া বিশ্ববিদ্যালয়ের কোলেজ অফ ফিজিশিয়ানস অ্যান্ড সার্জনস-এ প্রথম পূর্ণাঙ্গ সাদা কোটের অনুষ্ঠান (White Coat Ceremony, WCC) তৈরি করেন। এর আগে, মেডিকেল শিক্ষার্থীরা সাধারণত হিপোক্রেটিক শপথ (Hippocratic Oath) প্রথমবার গ্রহণ করতেন স্নাতকোত্তর সমারোহে (commencement)।

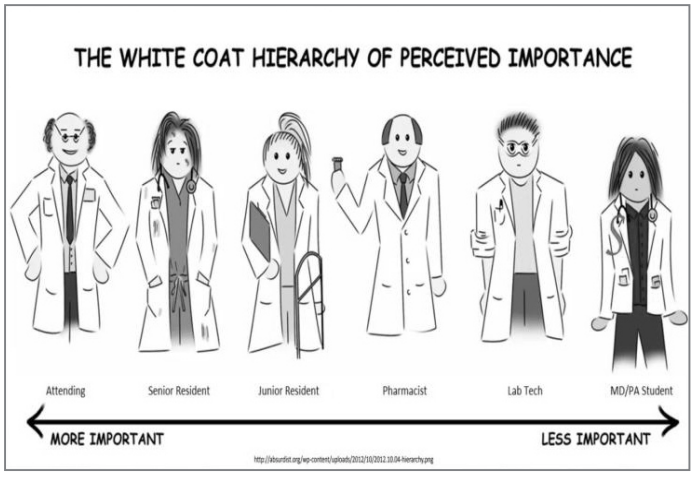
- শিক্ষার্থীদের প্রথম দিনের ক্লাস শুরু হওয়ার আগে চিকিৎসা পেশার জন্য প্রত্যাশা ও দায়িত্ব সম্পর্কে সুস্পষ্ট নির্দেশিকা দেওয়া।
- শিক্ষার্থীদেরকে চিকিৎসা পেশার নৈতিকতা, পেশাদারিত্ব এবং রোগীর প্রতি দায়িত্ববোধের সঙ্গে পরিচিত করা।

- সাদা কোটের অনুষ্ঠান (White Coat Ceremony, WCC) হল কিছু মেডিকেল স্কুল এবং অন্যান্য স্বাস্থ্য সম্পর্কিত শিক্ষাপ্রতিষ্ঠানে একটি আনুষ্ঠানিক রীতি, যা শিক্ষার্থীর প্রাক-ক্লিনিকাল (preclinical) অধ্যয়ন থেকে ক্লিনিকাল স্বাস্থ্যবিজ্ঞানে (clinical health sciences) রূপান্তরের সূচনা চিহ্নিত করে।

- কিছু স্কুলে, যেখানে শিক্ষার্থীরা তাদের শিক্ষাজীবনের শুরুতেই রোগীর সঙ্গে দেখা শুরু করে, সাদা কোটের অনুষ্ঠান প্রথম বর্ষ শুরু হওয়ার আগে অনুষ্ঠিত হয়।
- বিশ্বের অনেক মেডিকেল স্কুলে শিক্ষার্থীরা প্রথম বর্ষের অ্যানাটমি ক্লাস থেকে তাদের সাদা কোট পরা শুরু করে, তাই অনেক ক্ষেত্রে সরাসরি কোনো আনুষ্ঠানিক সাদা কোটের অনুষ্ঠান অনুষ্ঠিত হয় না।
- এটি শিক্ষার্থীদের জন্য একটি মানদণ্ডও প্রদান করে, যার বিরুদ্ধে তারা প্রতিটি রোগীর যত্নের কর্মকাণ্ড পরিমাপ করতে পারে।

সাদা কোটের অনুষ্ঠানের (White Coat Ceremony) উদ্দেশ্যসমূহ:

1. সাদা কোটের অনুষ্ঠান মেডিকেল শিক্ষার্থীদের জন্য একটি রাইত অফ প্যাসেজ (rite of passage)
2. সাদা কোট পেশাদারিত্বের প্রতীক এবং ভবিষ্য চিকিৎসকের উপর ন্যস্ত ভারী দায়িত্বের গুরুত্ব প্রকাশ করে।
3. এটি যত্নশীলতা এবং বিশ্বাসের প্রতীক হিসেবেও দেখা হয় যা রোগীদের থেকে চিকিৎসকরা অর্জন করতে হবে।
4. সাদা কোটের অনুষ্ঠান মেডিকেল শিক্ষার্থীদের জন্য একটি গুরুত্বপূর্ণ প্রতীক, যা তাদের চিকিৎসক হওয়ার নতুন এবং উত্তেজনাপূর্ণ যাত্রার শুরু নির্দেশ করে।
5. অনুষ্ঠানের সময় প্রতিটি শিক্ষার্থীর কাঁধে সাদা কোট পরানো হয় এবং হিপোক্রেটিক শপথ (Hippocratic Oath) পাঠ করা হয় যা তাদের চিকিৎসা পেশায় প্রবেশের প্রতীক হিসেবে গণ্য হয়।



আমরা "সাদা কোটের অনুষ্ঠান (White Coat Ceremony)" ?

1. আপনার অর্জনগুলি স্বীকৃতি দেওয়া হয়। এটি শিক্ষার্থীদের পরিশ্রম ও অগ্রগতির গুরুত্ব উপলব্ধি করাতে সাহায্য করে এবং আত্মবিশ্বাস বৃদ্ধি করে।
2. এটি চিকিৎসা পেশার পেশাদার বন্ধুত্বের (professional brotherhood) অংশে অন্তর্ভুক্তির একটি আনুষ্ঠানিক উদ্যোগ।
3. সাদা কোটের গুরুত্ব বোঝা অর্থাৎ এটি কেবল একটি পোশাক নয় বরং পেশাদারিত্ব, নৈতিকতা, রোগীর প্রতি দায়িত্ব এবং বিশ্বাসের প্রতীক হিসেবে কাজ করে তা উপলব্ধি করা।

চিকিৎসা নৈতিকতা / বিএমডিসি (BMDC) ডাক্তারদের নৈতিক কোড-ঘোষণা:

ঘোষণাপত্র:

• জেনেভা ঘোষণাপত্র (Declaration of Geneva) ১৯৪৮ সালে বিশ্ব চিকিৎসা সংস্থা (World Medical Association)-এর সাধারণ পরিষদে জেনেভায় গৃহীত হয়। একজন চিকিৎসা পেশার সদস্য হিসেবে এর মূল বিষয়গুলো হলো:

- আমি solemnly pledge (গম্ভীরভাবে প্রতিশ্রুতিবদ্ধ) করছি যে আমার জীবন মানবতার সেবায় নিবেদিত করব।
- আমার রোগীর স্বাস্থ্য ও মঙ্গল আমার সর্ব প্রথম বিবেচ্য বিষয় হবে।
- আমি আমার রোগীর স্বায়ত্তশাসন এবং মর্যাদা সম্মান করব।
- আমি মানবজীবনের প্রতি সর্বোচ্চ সম্মান বজায় রাখব।
- আমি আমার দায়িত্ব এবং রোগীর কল্যাণের মধ্যে কোনো প্রকার বিবেচনা-বয়স, রোগ বা অক্ষমতা, ধর্ম, জাতিগত পরিচয় লিঙ্গ, জাতীয়তা, রাজনৈতিক সংযুক্তি, জাতি, যৌন অভিমুখ, সামাজিক অবস্থান বা অন্য কোনো কারণ-প্রবেশ করতে দেব না।
- আমি আমার প্রতি আস্থা রেখে যে গোপনীয়তা শেয়ার করা হয়েছে তা রক্ষা করব, এমনকি রোগী মারা যাওয়ার পরেও।
- আমি আমার পেশা অন্তঃসত্তা ও মর্যাদার সঙ্গে অনুশীলন করব এবং সুষ্ঠু চিকিৎসা পদ্ধতির (Good Medical Practice) সঙ্গে সামঞ্জস্য রেখে কার্যকর করব।
- আমি চিকিৎসা পেশার সম্মান এবং মহৎ ঐতিহ্যকে এগিয়ে নিয়ে যাব।
- আমি আমার শিক্ষক, সহকর্মী ও শিক্ষার্থীদের সেই সম্মান এবং কৃতজ্ঞতা প্রদান করব যা তাদের প্রাপ্য।
- আমি চিকিৎসা পেশার সম্মান এবং মহান ঐতিহ্যকে এগিয়ে নেওয়ার চেষ্টা করব।
- আমি আমার শিক্ষক, সহকর্মী ও শিক্ষার্থীদের সেই সম্মান ও কৃতজ্ঞতা প্রদান করব যা তাদের প্রাপ্য।
- আমি আমার চিকিৎসা জ্ঞান রোগীর কল্যাণ এবং স্বাস্থ্যসেবার উন্নতির জন্য ভাগ করে নেব; রোগীর প্রয়োজনে আমি দ্রুত ব্যবস্থা নেব।

- যদি রোগীর সুরক্ষা অভ্যন্তরীণ শারীরবৃত্তীয় বা বাহ্যিক পরিবেশগত কারণে ঝুঁকিতে পড়ে আমি দ্রুত ব্যবস্থা নেব।
- আমি আমার নিজের স্বাস্থ্য, কল্যাণ এবং দক্ষতা বজায় রাখব, যাতে সর্বোচ্চ মানের যত্ন প্রদান করতে সক্ষম হই।
- আমি আমার চিকিৎসা জ্ঞান মানবাধিকারের এবং নাগরিক স্বাধীনতার লঙ্ঘন করতে ব্যবহার করব না, এমনকি হুমকির মুখে হলেও।
- আমি এই প্রতিশ্রুতিগুলো গম্ভীরভাবে, স্বেচ্ছায় এবং আমার সম্মানকে ভিত্তি করে গ্রহণ করছি।

আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (International Code of Medical Ethics)

- বিশ্ব চিকিৎসা সংস্থা (World Medical Association, WMA), যা চিকিৎসা পেশার বৈশ্বিক প্রতিনিধি, প্রথমবারের মতো আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (International Code of Medical Ethics, ICoME) ১৯৪৯ সালে গ্রহণ করে।
- রোগীদের প্রতি, অন্য চিকিৎসক ও স্বাস্থ্যকর্মীদের প্রতি, নিজেদের প্রতি এবং সমাজের প্রতি সামগ্রিকভাবে
- সম্প্রতি আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (ICoME) একটি বড় ৪ বছরব্যাপী পুনঃসংস্কার প্রক্রিয়ার মধ্য দিয়ে গেছে, যা culminate হয়ে অক্টোবর ২০২২-এ বার্লিনে WMA সাধারণ পরিষদের (General Assembly) একমত সিদ্ধান্তে গ্রহণ করা হয়।
- রোগীর কাছে প্রদত্ত সেবার জন্য সঠিক পেশাগত ফি ছাড়া অন্য কোনো টাকা গ্রহণ করা, যদিও রোগী তা জানে, তা অনৈতিক।
- মানুষের শারীরিক বা মানসিক প্রতিরোধক্ষমতা দুর্বল করতে পারে-এমন কোনো কাজ বা পরামর্শ শুধুমাত্র তার নিজের স্বার্থে ব্যবহার করা যেতে পারে।
- চিকিৎসককে নতুন আবিষ্কার বা চিকিৎসার নতুন কৌশল প্রকাশ করার ক্ষেত্রে অত্যন্ত সতর্ক থাকতে পরামর্শ দেওয়া হয়।
- চিকিৎসককে শুধুমাত্র সে বিষয়টি প্রত্যয়িত বা সাক্ষ্য দেওয়া উচিত যা সে নিজে ব্যক্তিগতভাবে যাচাই করেছে।

আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (International Code of Medical Ethics)

চিকিৎসকদের সাধারণ দায়িত্বসমূহ (Duties of Doctors in Genera:)

- একজন চিকিৎসককে সর্বদা পেশাগত আচরণের সর্বোচ্চ মানদণ্ড বজায় রাখতে হবে।
- একজন চিকিৎসককে তার পেশা লাভ বা অর্থের প্রলোভনে প্রভাবিত না হয়ে অনুশীলন করতে হবে।
- নিম্নলিখিত আচরণ বা প্রথাগুলো অনৈতিক (unethical) হিসেবে গণ্য করা হয়:

  ক. **স্ব-প্রচারণা (Self-advertisement):** শুধুমাত্র জাতীয় চিকিৎসা নৈতিকতা কোড দ্বারা সুস্পষ্টভাবে অনুমোদিত ক্ষেত্রে ব্যতীত কোনো স্ব-প্রচারণা করা।

  খ. **পেশাগত স্বাধীনতার অভাবযুক্ত সহযোগিতা:** এমন কোনো চিকিৎসা সেবায় সহযোগিতা করা যেখানে চিকিৎসকের পেশাগত স্বাধীনতা নেই।

আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (International Code of Medical Ethics)

রোগীর প্রতি চিকিৎসকের দায়িত্ব (Duties of Doctors to the Sick:)

- একজন চিকিৎসককে সর্বদা মানবজীবন রক্ষার দায়িত্বের কথা মনে রাখতে হবে শুরু থেকেই (গর্ভধারণ থেকে)। থেরাপিউটিক এবরশন (Therapeutic abortion) শুধুমাত্র তখনই করা যাবে যদি চিকিৎসকের বিবেক এবং জাতীয় আইন তা অনুমোদন করে।
- একজন চিকিৎসক তার রোগীর প্রতি পূর্ণ আনুগত্য এবং নিজের সমস্ত বৈজ্ঞানিক সক্ষমতা প্রদান করার দায়িত্বে আবদ্ধ। যদি কোনো পরীক্ষা বা চিকিৎসা তার ক্ষমতার বাইরে হয় তিনি যে চিকিৎসক সেই দক্ষতা রাখেন তাকে সাহায্যের জন্য ডাকার দায়িত্ব পালন করবেন।
- একজন চিকিৎসককে তার রোগী সম্পর্কে যেটা জানা আছে তার সব কিছু পূর্ণ গোপনীয়তা বজায় রাখতে হবে, কারণ রোগী তাকে যে আস্থা প্রদত্ত করেছেন তা রক্ষা করতে হবে।
- একজন চিকিৎসককে মানবিক কর্তব্য হিসেবে জরুরি চিকিৎসা প্রদান করতে হবে, যতক্ষণ না তিনি নিশ্চিত হন যে অন্যরা উক্ত

আন্তর্জাতিক চিকিৎসা নৈতিকতা কোড (International Code of Medical Ethics)

চিকিৎসকদের একে অপরের প্রতি দায়িত্ব (Duties of Doctors to each other):

- একজন চিকিৎসককে তার সহকর্মীদের সাথে সেভাবে আচরণ করা উচিত যেমনভাবে তিনি চান তারা তার সাথে আচরণ করুক।
- একজন চিকিৎসককে তার সহকর্মীর রোগীকে প্রলুব্ধ বা লোভ দেখিয়ে নিজদিকে আনা উচিত নয়।
- একজন চিকিৎসককে বিশ্ব মেডিক্যাল অ্যাসোসিয়েশন অনুমোদিত **জেনেভা ঘোষণার** নীতিমালা অনুসরণ করতে হবে ।

জেনেভা ঘোষণাপত্র (Declara on of Geneva)

জেনেভা ঘোষণাপত্র ইতিহাস (The History of The Declaration of Geneva:)

- জেনেভা ঘোষণাপত্র (Declaration of Geneva) হলো হিপোক্রেটিক শপথের আধুনিক সংস্করণ, যা চিকিৎসকের মানবিক লক্ষ্য ও মানবতার সেবায় প্রতিশ্রুতিবদ্ধতার ঘোষণা হিসেবে কাজ করে।
- এটি তৈরি হয় চিকিৎসা নৈতিকতার প্রতি উদ্বেগের কারণে, বিশেষ করে নাজি জার্মানিতে সংঘটিত চিকিৎসা অপরাধের পরিপ্রেক্ষিতে।
- এর নামকরণ করা হয়েছিল কারণ এটি ১৯৪৮ সালে সুইজারল্যান্ডের জেনেভায় বিশ্ব চিকিৎসা সংস্থা (WMA)-এর দ্বিতীয় সাধারণ সভায় (Second General Assembly) গৃহীত হয়েছিল।
- আজকাল, বেশিরভাগ স্নাতক পর্যায়ের মেডিকেল শিক্ষার্থী জেনেভা ঘোষণাপত্রে (Declaration of Geneva) শপথ গ্রহণ করেন, যখন তারা চিকিৎসা পেশার সদস্য হিসেবে অন্তর্ভুক্ত হন।
- আমি গম্ভীরভাবে প্রতিশ্রুতিবদ্ধ করছি যে, আমার জীবন মানবতার সেবায় নিবেদিত করব।
- আমি আমার শিক্ষকদের প্রাপ্য সম্মান ও কৃতজ্ঞতা প্রদান করব।

Declaration of Geneva

- আমি বিবেক ও মর্যাদার সাথে আমার পেশা অনুশীলন করব।
- আমার রোগীর স্বাস্থ্য ও কল্যাণই হবে আমার সর্বপ্রথম বিবেচ্য বিষয়।
- আমি আমার ওপর ন্যস্ত গোপনীয়তাকে সম্মান করব, এমনকি রোগীর মৃত্যু-পরেও।
- আমার সামর্থ্যের সর্বোচ্চ ব্যবহার করে আমি চিকিৎসা পেশার মর্যাদা ও মহান ঐতিহ্য বজায় রাখব।
- আমার সহকর্মীরা হবেন আমার বোন ও ভাই।
- বয়স, রোগ বা অক্ষমতা, ধর্ম, জাতিগত উৎস, লিঙ্গ, জাতীয়তা, রাজনৈতিক সংশ্লিষ্টতা, বর্ণ, যৌন অভিমুখ, সামাজিক অবস্থান বা অন্য কোনো বিষয়কে আমি আমার দায়িত্ব ও রোগীর মাঝে হস্তক্ষেপ করতে দেব না।
- আমি মানবজীবনের প্রতি সর্বোচ্চ সম্মান বজায় রাখব।
- আমি কোনো পরিস্থিতিতেই, এমনকি হুমকির মুখেও, মানবাধিকার ও নাগরিক স্বাধীনতা লঙ্ঘনের জন্য আমার চিকিৎসা জ্ঞান ব্যবহার করব না।
- আমি এই অঙ্গীকারগুলো করছি গম্ভীরভাবে, স্বাধীনভাবে এবং আমার সম্মানের উপর ভর করে।

হিপোক্রেটিক শপথ (Hippocratic oath)

- হিপোক্রেটিক শপথ ঐতিহ্যগতভাবে তরুণ চিকিৎসকদের পেশায় প্রবেশের সময় প্রদান করা হয়।
- হিপোক্রেটিস, যিনি 'চিকিৎসাবিজ্ঞানের জনক' নামে পরিচিত একজন গ্রিক চিকিৎসক, খ্রিস্টপূর্ব প্রায় ৪৬০ থেকে ৩৭৭ অব্দ পর্যন্ত জীবিত ছিলেন। তিনি চিকিৎসাবিদ্যাকে কুসংস্কার, দর্শন ও ধর্মীয় আচার থেকে মুক্ত করে বৈজ্ঞানিক ভিত্তির ওপর প্রতিষ্ঠিত করেছিলেন।
- তার শারীরবিদ্যা, রোগতত্ত্ব এবং চিকিৎসাবিদ্যা মূলত তাঁর পূর্বসূরিদের মতবাদ ও শিক্ষার ওপর ভিত্তি করে গড়ে উঠেছিল।
- হিপোক্রেটিক শপথ হলো চিকিৎসা চর্চার মৌলিক নীতি, যা চিকিৎসকদের জন্য নৈতিক আচরণবিধি নির্ধারণ করেছে।

হিপোক্রেটিক শপথের মূল নীতিসমূহের সারসংক্ষেপ (Summary of principles from the Hippocratic Oath)

ক্লাসিক্যাল হিপোক্রেটিক শপথকে নিম্নরূপে সংক্ষেপ করা হয়েছে (The classical Hippocratic Oath has been summarised as):

- একটি গম্ভীর অঙ্গীকার: শিক্ষক ও অন্যান্য চিকিৎসকদের প্রতি সংহতির প্রতিশ্রুতি।
- সদাচরণ (ভাল করা বা অমঙ্গল এড়ানো) এবং অমন্দাচরণ- অর্থাৎ রোগীর প্রতি 'কোনো ক্ষতি না করা'-এর অঙ্গীকার। (উল্লেখযোগ্য যে, সুপরিচিত 'প্রথমে কোনো ক্ষতি করো না' বাক্যটি ক্লাসিক্যাল হিপোক্রেটিক শপথে আসলে নেই)।
- আত্মহত্যা বা গর্ভপাতের ক্ষেত্রে কোনো সহায়তা না করা।
- শল্যচিকিৎসা সার্জনদের কাছেই ছেড়ে দেওয়া।
- ক্ষতি না করা-বিশেষ করে রোগীকে প্রলুব্ধ বা প্ররোচিত না করা।
- গোপনীয়তা রক্ষা করা এবং কখনোই রোগী সম্পর্কে গুজব বা ব্যক্তিগত তথ্য ছড়িয়ে না দেওয়া।

(The Hippocratic Oath):

(Modern Version)

আমি সর্বশক্তিমানের উপস্থিতিতে এবং আমার পরিবার, শিক্ষক ও সহকর্মীদের সামনে শপথ করছি যে, আমার সামর্থ্য ও বিবেচনা অনুযায়ী আমি এই শপথ ও বিধান পালন করব। যারা আমাকে চিকিৎসাশাস্ত্র শিক্ষা দিয়েছেন তাদের সবাইকে আমি আমার পিতামাতার সমান শ্রদ্ধার আসনে রাখব এবং একই মনোভাব ও নিষ্ঠা নিয়ে এই চিকিৎসাবিদ্যার জ্ঞান অন্যদের মাঝে ছড়িয়ে দেব। চিকিৎসাবিজ্ঞা নের উন্নয়নের সঙ্গে তাল মিলিয়ে চলার জন্য আমি অধ্যবসায়ের সঙ্গে আমার জ্ঞান বৃদ্ধি করতে থাকব। যারা আমার চিকিৎসা চাইবে, তাদের সবাইকে আমি ব্যতিক্রমহীনভাবে চিকিৎসা সেবা দেব-যতক্ষণ না তা অন্য কারও চিকিৎসাকে ব্যাহত করে। এবং যেখানে বিশেষজ্ঞ মতামত প্রয়োজন হবে, সেখানে রোগীর কল্যাণের জন্য বিশেষ দক্ষ চিকিৎসকের পরামর্শ গ্রহণ করব। আমি সেই চিকিৎসা-পদ্ধতিই অনুসরণ করব, যা আমার সামর্থ্য ও বিবেচনায় রোগীর উপকারে আসে, এবং যা ক্ষতিকর বা দুরভিসন্ধিমূলক, তা থেকে বিরত থাকব।আমি কোনো রোগীকে-চাইলেও-মরণঘাতী কোনো ওষুধ প্রেসক্রাইব বা প্রয়োগ করব না, এবং এমন কোনো বিষয়ে কাউকে পরামর্শও দেব না। গর্ভধারণের সময় থেকে প্রাকৃতিক মৃত্যু পর্যন্ত প্রতিটি মানবজীবনের প্রতি সর্বোচ্চ সম্মান প্রদর্শন করব এবং যে গর্ভপাত সচেতনভাবে একটি অনন্য মানবজীবন নষ্ট করে, তাকে প্রত্যাখ্যান করব। পবিত্রতা, পবিত্র মনোভাব ও কল্যাণকামিতার সঙ্গে আমি জীবনযাপন করব এবং আমার চিকিৎসা-শিল্প অনুশীলন করব। আসন্ন কোনো বিপদের সঠিক ও বিচক্ষণ প্রতিরোধ ব্যতীত, আমি বৈধ এবং অবগত সম্মতি ছাড়া কোনো রোগীকে চিকিৎসা করব না, এবং কোনো মানুষের ওপর গবেষণা পরিচালনা করব না। আমি বুঝি যে গবেষণার উদ্দেশ্য অবশ্যই সংশ্লিষ্ট ব্যক্তির স্বাস্থ্যের উন্নয়ন হওয়া উচিত। আমার পেশাগত চর্চার সঙ্গে বা তার বাইরে-রোগীদের জীবনে যা কিছু আমি দেখি বা শুনি, যা প্রকাশ করা উচিত নয় আমি তা প্রকাশ করব না; কারণ আমি মনে করি এসব বিষয় গোপন রাখা উচিত। আমার পেশাগত অনুশীলনের সঙ্গে বা এর বাইরে, আমি আমার রোগীদের জীবনে যে কোনো কিছু দেখতে বা শুনতে পারি যা জনসমক্ষে প্রকাশ করা উচিত নয়-আমি সেসব প্রকাশ করব না, কারণ আমি মনে করি এইসব বিষয় গোপন রাখা উচিত। যতদিন আমি এই শপথ অটুট রাখব, ততদিন সর্বশক্তিমানের আশীর্বাদে এবং সহকর্মী ও সমাজের সম্মান নিয়ে আমি জীবন উপভোগ করতে এবং চিকিৎসাশাস্ত্রের জ্ঞান ও কর্ম অনুশীলন করতে পারি-এই প্রার্থনা করি। কিন্তু যদি আমি এই শপথ ভঙ্গ করি বা লঙ্ঘন করি, তবে এর বিপরীতটাই যেন আমার ভাগ্যে আসে। যে কোনো রোগীর পরিবেশে প্রবেশ করলে, আমি অসুস্থদের কল্যাণের জন্যই প্রবেশ করব এবং ইচ্ছাকৃত কোনো দুরাচরণ বা দুর্নীতি থেকেও বিরত থাকব, এমনকি কোনো রোগীকে প্রলুব্ধ করাও কঠোরভাবে পরিহার করব।

Topic 17: CME/CPD

Abu Shahin Mohammed Mahbubur Rahman; Md Zahirul Haque

Outline	
Topic	Continuing Medical Education (CME) & Continuing Professional Development (CPD)
Learning objective	At the end the session the students will be able to - • mention importance of CME & CPD for a doctors • list the barrier of CME & CPD and ways of overcoming those barriers • know the Effectiveness of CME • discuss the methods of CME • know the CME/CPD in the International & Bangladesh perspective
List of contents	• Definition of CME/CPD • Purpose of CME & CPD • Importance of CME & CPD • Barriers of CME & CPD and ways of overcoming those barriers • Methods of CME & CPD • Effectiveness of CME & CPD • CME in international and Bangladesh perspective
Method	Interactive lecture or seminar
Hour	One And a half hours

Purpose/aim of this module

Fox and Bennett state, *"CME is the systematic attempt to facilitate change in physicians' practices."*

Medicine is experiencing continuous and significant advancements across all fields. The substantial improvements in understanding the underlying causes of diseases have allowed for more rational foundations for the diagnosis and management of various disorders. New tools and therapies are continually emerging, enhancing patient care and management, and raising hopes for more targeted treatments for many conditions. Continuing Medical Education (CME) has become essential due to the rapid progress in medical science and technology.

Continuing medical education (CME) is an ongoing learning process in practice and is recognized as a comprehensive approach to continuous professional development (CPD). Through CME, healthcare professionals can enhance their skills in various ways to achieve better patient outcomes and improve satisfaction with quality medical practice, including:

Assessment of pre-requisite knowledge (Prior learning)

- What is CME?
- What is CPD?
- What is the importance of CME/CPD in Medical science?
- What is the barrier of CME/CPD?

Clinical update	**Communication**
Research and scientific writing	**Management and behavioral skills**
Multidisciplinary context of care	**Team building**
Ethical practice	**Information technology**

Contents

CME:

According to the American Medical Association (AMA), CME consists of "educational activities which maintain, develop, or increase the knowledge, skills and professional performance and relationships that a physician uses to provide services for patients, the public or the profession."

CPD:

CPD stands for Continuing Professional Development, a term used to describe the learning activities professionals engage in to develop and enhance their abilities. It is a holistic approach to enhancing personal skills and proficiency throughout a professional's career.

Therefore, Continuing Medical Education (CME) and Continuing Professional Development (CPD) differ. CME only updates clinical Knowledge. As a result, CME is a component of CPD, encompassing various skills essential for the healthcare profession.

Difference between CME and CPD:

The General Medical Council explains the difference between CPD and CME further: "Continuing Professional Development and Continuing Medical Education are frequently used interchangeably; most literature has now defined CME as an ingredient of CPD. CPD is a process that includes continuing medical education. Many countries are now moving from a knowledge- and skills-based CME system to one that promotes the wide-ranging competencies needed to practice high-quality medicine.

Importance of CME:

The medical field constantly evolves with new technologies, practices, and innovations. It has been estimated that about half of all medical knowledge is out of date within five years. Therefore, all medical professionals must continue their education throughout their careers to provide the highest possible level of patient care and advance their careers. It feeds their curiosity, broadens and updates their knowledge, hones their skills, inspires their confidence, and, most importantly, benefits patients and the public's health. In other words, learning continues through continued medical education or CME.

The importance of continuing medical education to health care providers is:

- Refine skills to improve overall patient care
- Stay updated with the latest developments within their specialty
- Address real-world challenges that healthcare professionals face day-to-day
- Gain professional growth and a means to advance career status
- Meet licensing/certification requirements
- Learn practical medical team management skills

Barrier of CME/CPD:

Continuing medical education (CME) is essential for healthcare professionals to maintain competency and learn about new and developing areas of their field. However, several barriers can hinder the optimum outcome of CME. These barriers can be broadly categorized into structural, personal, financial, and content-related obstacles.

1. Structural Barriers:
   - Time Constraints: Healthcare professionals often have demanding schedules, making allocating time for CME activities difficult.
   - Geographic Barriers: Professionals in remote or rural areas may have limited access to CME opportunities that require physical presence.
   - Technological Barriers: Limited access to reliable internet or technology can impede participation in online CME activities.

2. Personal Barriers:
   - Lack of Motivation: Some professionals may not feel motivated to engage in CME due to a perceived lack of relevance or immediate benefit to their practice.
   - Work-Life Balance: Balancing work responsibilities and personal life can make it challenging to find time for CME.
   - Fatigue and Burnout: High levels of stress and burnout can reduce the energy and focus needed to engage in CME.

3. Financial Barriers:
   - Cost of Courses: Fees for CME courses, travel expenses, and accommodation costs can be prohibitive.
   - Loss of Income: Taking time off work to attend CME events can result in lost income, which can be a significant deterrent.

3. Content-Related Barriers:
   - Relevance of Content: CME programs may not always align with healthcare professionals' specific needs or interests.
   - Quality of Education: Perceived or poor educational offerings can discourage participation.
   - Access to Up-to-date Information: Ensuring the content is current and evidence-based can be challenging.

Addressing these barriers requires a multifaceted approach, including flexible scheduling of CME activities, offering online and on-demand courses, providing financial support or incentives, and ensuring the relevance and quality of the educational content.

Methods of CME:

Figure 1: Method of CME

Regarding methods, interactive small-group learning is shown to be more effective in achieving the learning objectives and improving practice.

Effectiveness of CME

The effectiveness of CME depends on multiple factors, including;

1. Type of interventions;
   - ✦ Active interventions (e.g., workshops and individual training)
   - ✦ Passive interventions (e.g., conferences and print-only interventions)
   - ✦ Mixed interventions in which combinations of active or passive interventions, or both (e.g., small-group activity and post-course feedback)- more effective than above

2. Participant types and numbers
   - ✦ Same disciplines

- Multiple disciplines
- Number of participants

3. Time
   - Contact time (length of intervention)
   - Assessment time (time interval between the educational intervention and the measurement of its effect)

4. Single versus multiple sessions
   - Single session (intervention takes place only once)
   - Multiple sessions (interventions take place longitudinally)

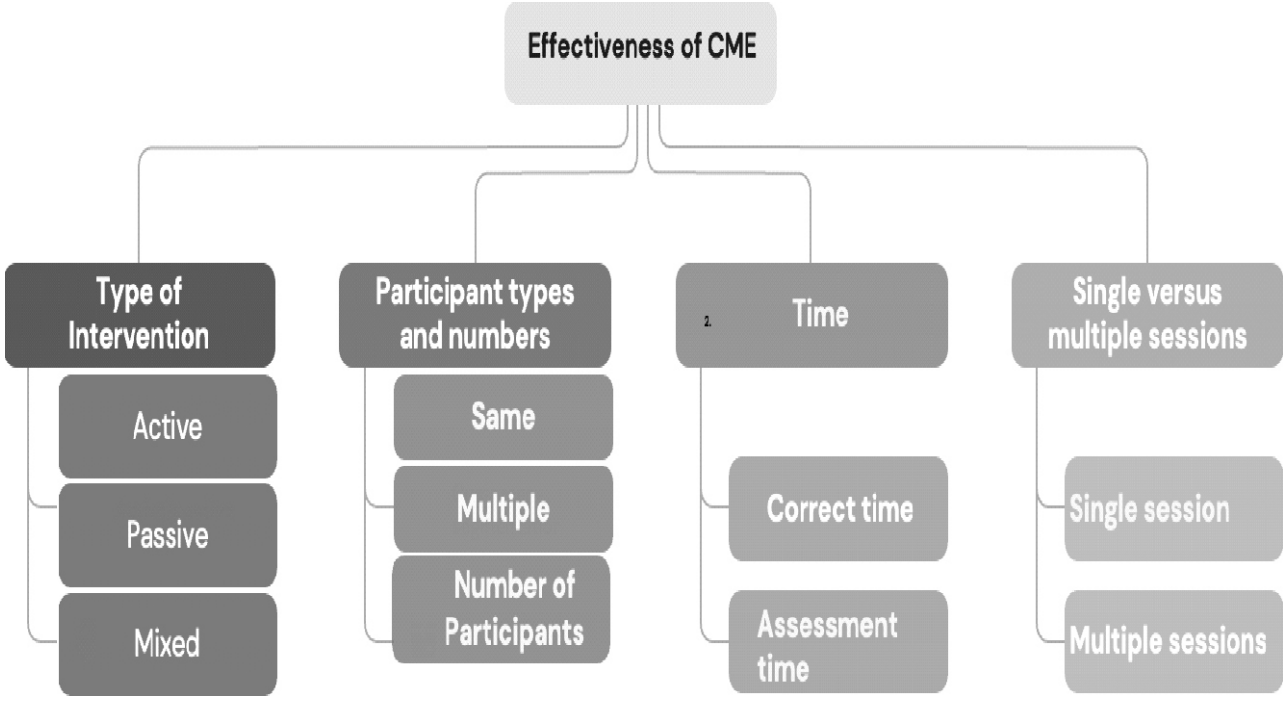


Figure 2: Effectiveness of CME

Establishment of CME/CPD

- The concept of CME was first developed in the United States in the late 1920s when it was realized that practicing physicians' initial medical training was inadequate.
- Medical schools established a traditional system of continuing education. The first required program was in urology, which started in 1934.
- The American Medical Association (AMA) released the first rules for appropriate medical practice in 1957 (Loic Josseran, 2001).

The practice of CME/CPD in the perspective of the world

- Credit acquisition is currently the foundation of continuing professional development (CPD) programs in the United Kingdom (Boulay, 2000). CPD programs are also available in the UK so that physicians can stay up-to-date and improve in their professional fields. A general practitioner (GP) organization carries out an

annual cycle of appraisal and review. The practitioner's CPD portfolio and performance in practice are considered for review (Simmons, 2018).

- In the United States, physicians must pass a test to evaluate their knowledge and skills to be board-certified when their certification expires. Doctors with board certification must also take part in CME events. Before recertifying individuals, specific boards evaluate their performance using peer review, recommendation letters, and a report on their current licensure status. Although re-certification is optional in the USA, physicians with board certification enjoy benefits such as the ability to admit patients to hospitals, top payment rates, and compensation as specialists (Philip G Bashook, 1998).

- Eleven of the twenty-seven members of the European Union (EU) require national CME (Lisanti, 2007). The European Union of Medical Specialists (EUMS) is a non-governmental organization representing national medical specialists' associations in the EU and its member states. Its primary goal is to organize and facilitate medical specialists' mutual recognition of the accreditation of CME and CPD activities by giving them European CME credits (ECMECs) (Tommaso Saita, 2014).

- Singapore is the only country in Asia where physicians must complete continuing medical education (CME) to obtain their annual practicing certificate. The Singapore Medical Council oversees Singapore's CME program and grants certificates of practice (Murgatroyd, 2011).

In terms of Japan, around 900 local medical societies are governed by the Japan Medical Association (JMA). Since 1987, the JMA has offered independent, elective programs for doctors to continue their medical education (CME). These programs are currently run by the JMA Council for Academic Affairs (Murgatroyd, 2011).

CME/CPD in the perspective of Bangladesh

- The government of Bangladesh established the Center for Medical Education (CME) to innovate medical education, educational management, the educational system, teaching-learning, assessment, research, academic audit, and journal publication. It is housed under the Directorate General of Medical Education (DGME), Medical Education and Family Welfare Division, Ministry of Health and Family Welfare, Bangladesh.

- Our physicians face new challenges every day during patient treatment. To provide quality healthcare services, healthcare professionals in Bangladesh must continue their medical education and professional growth. Physicians must be lifelong learners to provide the best care for their patients. The ever-changing nature of medical practice, the exponential expansion of medical knowledge, and changing patient expectations will drive a shift toward mandatory CPD for physicians. Mandated CPD for physicians has yet to be implemented to improve professional outcomes and personal development.

- In Bangladesh, CME and CPD are arranged sporadically, but no definite planned, systematic, organized, need-based CME or CPD program exists.

- Leadership, a framework, and a delineated plan responsive to the needs and context of the setting are essential for developing, implementing, and sustaining a CPD system for healthcare professionals in our country.

Assessment type

1. SAQ:
   a. What do you mean by CME/CPD?
   b. What is the importance of CME?
   c. What are the barriers to CME/CPD?

d. What are the Methods of CME/CPD?

e. Which one is the best Method?

f. What is the situation of CME situation in Bangladesh?

2. SBA:
   a. Which is not a barrier to CME

   1. Time constraint
   2. Lack of motivation
   3. Loss of income
   4. Financial gain

Bibliography

1. Boulay, C. d. (2000, Feb 12). From CME to CPD: getting better at getting better? *British Medical Journal, 320*, 393-394. doi:10.1136/bmj.320.7232.393

2. Cathy Peck, M. M. (2020). Continuing medical education and continuing professional development: international comparisons. *BMJ, 320*, 432-435. doi:10.1136/bmj.320.7232.432

3. Farzana Nazera, P. D. (2022). The Role Of CPD And Organizational Performance: An Opinion Survey Of Physicians In Bangladesh. *Journal of Pharmaceutical Negative Results, 13*(2), 69-74. doi: 10.47750/pnr.2022.13.S02.11

4. Lisanti, L. (2007). CME systems in Europe. *Paper presented at the 32nd annual Alliance for Continuing Medical Education conference.* Arizona.

5. Loic Josseran, J. C. (2001). History of continuing medical education in the United States. *La Presse Médicale, 30*(10), 493-7.

6. Murgatroyd, G. B. (2011, July). Continuing Professional Development, the international perspective. Retrieved from https://www.gmc-uk.org/-/media/documents/cpd---the-internationalperspective-jul-11_pdf-44810902.pdf

7. Palma, P. U. (2019). *Battle of Female Doctors: They Surpass Male Peers in Number, Yet Struggle Against Host of Barriers*. The Daily Star. Retrieved October 7, 2022, from Available online: https://www.thedailystar.net/backpage/news/uphill-battle-female-doctors-1739776

8. Philip G Bashook, J. P. (1998). Recertification and the maintenance of competence. *BMJ, 316*, 545548. doi:10.1136/bmj.316.7130.545

9. Simmons, K. (2018, April 26). *Continuing Professional Development (CPD) in the UK*. Retrieved from NEJM Knowledge+: https://knowledgeplus.nejm.org/blog/continuing-professionaldevelopment-cpd-in-the-uk/

10. Tommaso Saita, P. D. (2014). Evaluation of Continuing Medical Education (CME) Systems across the 27 European Countries. *Creative Education, 5*(9), 682-689. doi:10.4236/ce.2014.59080

11. WHA59.23. (2006). Rapid Scaling up of Health workforce production. *The Fifty-ninth World Health Assembly.*

12. Ahmed K, Ashrafian H (October 2009). "Life-long learning for physicians". Science. 326 (5950): 227. Bibcode:2009Sci... 326..227A. doi:10.1126/science.326_227a. PMID 19815754.

13. Anwar H, Batty H. Continuing Medical Education Strategy for Primary Health Care Physicians in Oman: Lessons to be learnt. Oman Med J. 2007 Oct;22(3):33-5. PMID: 22400090; PMCID: PMC3294157.

14. Al-Mosawi, A. J. (2007). Continuing Medical Education: Principles, concepts, and standards. The N Iraqi J of Medicine, 3(2), 32-35.

15. Nazera, F., & Raju, V. (2022). The Role Of CPD And Organizational Performance: An Opinion Survey Of Physicians In Bangladesh. *Journal of Pharmaceutical Negative Results*, 69-74.

Topic 18: Causes of death

Pritish Tarafder

Causes of death- Definition

Mortality:

Mortality refers to the state or condition of being subject to death. In public health and epidemiology, mortality specifically refers to the occurrence of death within a population. It is often measured as mortality rates, which indicate the number of deaths in a given population over a specified period, usually expressed as a rate per 1,000 or 100,000 individuals. Mortality is a fundamental aspect of health research and public health practice, as it provides insights into the overall health status, disease burden, and life expectancy of a population. Understanding mortality patterns and trends is crucial for identifying health priorities, planning interventions, and evaluating the effectiveness of healthcare and public health programs.

Understanding the causes of death is of paramount importance for several reasons:

Public Health Planning and Policy: Knowledge of the leading causes of death informs public health policies and interventions. By understanding which diseases and conditions are responsible for the most deaths, governments and health organizations can allocate resources effectively to address these issues. For example, if cardiovascular diseases are the leading cause of death in a particular region, preventive measures such as promoting healthy lifestyles and improving access to healthcare services can be prioritized

Disease Prevention and Control: Identifying the causes of death helps in developing targeted prevention and control strategies. For infectious diseases, understanding the pathogens responsible for fatalities can guide vaccination programs, vector control efforts, and treatment protocols. Similarly, for chronic conditions like diabetes or cancer, knowledge of risk factors and underlying mechanisms can inform preventive measures and early detection strategies.

Healthcare Resource Allocation: Healthcare resources, including personnel, facilities, and medical supplies, are finite. Understanding the causes of death helps healthcare systems allocate these resources efficiently. For instance, hospitals can ensure they have the necessary equipment and expertise to manage conditions that frequently lead to mortality in their patient population.

Research and Innovation: Investigating the causes of death drives medical research and innovation. Scientists and healthcare professionals strive to understand the underlying mechanisms of diseases and develop new treatments and interventions to improve survival rates and quality of life. Research into the causes of death also contributes to advancements in diagnostic techniques, therapeutic interventions, and public health strategies.

Disease Prevention and Control: Identifying the causes of death helps in developing targeted prevention and control strategies. For infectious diseases, understanding the pathogens responsible for fatalities can guide vaccination programs, vector control efforts, and treatment protocols. Similarly, for chronic conditions like diabetes or cancer, knowledge of risk factors and underlying mechanisms can inform preventive measures and early detection strategies.

Healthcare Resource Allocation: Healthcare resources, including personnel, facilities, and medical supplies, are finite. Understanding the causes of death helps healthcare systems allocate these resources efficiently. For instance, hospitals can ensure they have the necessary equipment and expertise to manage conditions that frequently lead to mortality in their patient population.

Research and Innovation: Investigating the causes of death drives medical research and innovation. Scientists and healthcare professionals strive to understand the underlying mechanisms of diseases and develop new treatments and interventions to improve survival rates and quality of life. Research into the causes of death also contributes to advancements in diagnostic techniques, therapeutic interventions, and public health strategies.

Monitoring Health Trends and Progress: Tracking changes in mortality patterns over time provides insights into the effectiveness of public health interventions and healthcare systems. Decreases in mortality rates for specific diseases may indicate successful prevention efforts or improved treatment options. Conversely, increases in mortality rates may signal emerging health threats or gaps in healthcare delivery that require attention.

Health Equity and Social Justice: Understanding the causes of death helps identify disparities in health outcomes among different population groups. By addressing the root causes of these disparities, such as socioeconomic inequalities, discrimination, and lack of access to healthcare, efforts can be made to promote health equity and social justice.

In summary, understanding the causes of death is essential for guiding public health policies, preventing diseases, optimizing healthcare resource allocation, driving research and innovation, monitoring health trends, and promoting health equity.

Terminology related to causes of death:

Cause of Death: The specific reason or condition responsible for an individual's demise, often identified through medical examination and recorded on a death certificate.

Underlying Cause of Death: The disease or injury that initiated the chain of events leading to death, also referred to as the primary cause.

Immediate Cause of Death: The final disease, injury, or complication directly resulting in death, typically listed immediately preceding the underlying cause.

Contributing Factor: Additional diseases, conditions, or events that may have contributed to the fatal outcome but are not listed as the immediate or underlying cause of death.

Mortality Rate: A measure of the frequency of deaths within a population over a specified time period, often expressed as the number of deaths per 1,000 individuals.

Age-Specific Mortality Rate: Mortality rate calculated specifically for particular age groups within a population, providing insights into age-related mortality patterns.

Cause-Specific Mortality Rate: The mortality rate attributed to a particular cause of death, such as heart disease, cancer, infectious diseases, or accidents.

Global and Regional Patterns of Mortality: Leading causes of death worldwide:

It's essential to note that these leading causes of death can vary by region and can be influenced by factors such as socioeconomic status, healthcare infrastructure, lifestyle choices, and environmental conditions. Efforts to address these causes of death often require a multifaceted approach involving public health policies, healthcare interventions, education, and community engagement.

Leading causes of death worldwide:

The leading causes of death worldwide can vary depending on factors such as region, socioeconomic status, and access to healthcare. However, some common leading causes of death globally include:

Cardiovascular Diseases: Including heart disease and stroke, cardiovascular diseases are the leading cause of death globally. Risk factors include high blood pressure, high cholesterol, smoking, obesity, and physical inactivity.

Respiratory Diseases: Respiratory illnesses such as chronic obstructive pulmonary disease (COPD), pneumonia, and lung cancer contribute significantly to global mortality, particularly in regions with high levels of air pollution and tobacco use.

Infectious Diseases: While significant progress has been made in combating infectious diseases, they still contribute to a substantial number of deaths worldwide. This category includes diseases such as HIV/AIDS, tuberculosis, malaria, and diarrheal diseases.

Cancer: Cancer is a leading cause of death worldwide, with various types affecting different populations differently. Risk factors for cancer include tobacco use, unhealthy diet, physical inactivity, alcohol consumption, and environmental factors.

Diabetes: Diabetes, particularly type 2 diabetes, is a significant contributor to global mortality, often leading to complications such as cardiovascular disease, kidney failure, and blindness if not properly managed.

Road Traffic Injuries: Accidents and injuries from road traffic incidents are a leading cause of death, particularly among younger populations. Factors such as unsafe road infrastructure, speeding, alcohol consumption, and lack of seatbelt use contribute to these fatalities.

Dementia and Alzheimer's Disease: With an aging global population, dementia and Alzheimer's disease are becoming increasingly prevalent causes of death, particularly in high-income countries.

Neonatal Conditions: Complications during pregnancy, childbirth, and the immediate postnatal period contribute to a significant portion of global neonatal mortality, particularly in low-income countries with limited access to maternal and child healthcare services.

Digestive Diseases: Liver disease, particularly caused by hepatitis viruses and alcohol abuse, is a leading cause of death globally. Additionally, gastrointestinal cancers and other digestive disorders contribute to mortality rates.

Suicide: Mental health conditions, including depression, anxiety, and substance abuse disorders, contribute to suicide rates worldwide. Stigma surrounding mental health and inadequate access to mental healthcare services are significant contributing factors.

Regional variations in mortality patterns:

Regional variations in mortality patterns are influenced by a multitude of factors, including demographics, socio-economic conditions, cultural practices, healthcare infrastructure, environmental factors, and access to healthcare. These variations result in differing leading causes of death and mortality rates across regions. Here's a breakdown of how mortality patterns may vary by region:

Regional variations in mortality patterns: High-Income Countries:

Leading Causes: In high-income countries, non-communicable diseases such as cardiovascular diseases, cancer, and respiratory diseases are major contributors to mortality. Accidents, injuries, and suicides also play significant roles.

Aging Population: These countries often have aging populations, leading to an increase in deaths related to age-associated conditions like dementia and Alzheimer's disease.

Advanced Healthcare: Access to advanced healthcare services and technologies may lead to better management of chronic diseases, reducing mortality rates from conditions like heart disease and cancer.

Regional variations in mortality patterns: Low- and Middle- Income Countries:

Infectious Diseases: In contrast to high-income countries, infectious diseases such as malaria, HIV/AIDS, tuberculosis, and diarrheal diseases remain major causes of death in many low- and middle-income regions.

Maternal and Child Health: Mortality rates among infants, children, and mothers may be higher due to factors like inadequate prenatal care, poor sanitation, and limited access to healthcare facilities.

Malnutrition: Undernutrition and malnutrition-related diseases contribute significantly to mortality rates, particularly among children and vulnerable populations.

Regional variations in mortality patterns: Low- and Middle-Income Countries:

Limited Healthcare Infrastructure: Limited access to healthcare services, including skilled healthcare providers, medications, and medical facilities, can lead to higher mortality rates from treatable conditions.

Environmental Factors: Exposure to environmental pollutants, unsafe drinking water, and inadequate sanitation can increase the risk of infectious diseases and contribute to mortality rates.

Occupational Hazards: Work-related injuries and exposure to occupational hazards, such as unsafe working conditions in agriculture and manufacturing sectors, may contribute to mortality in some regions.

Trends over time: epidemiological transition in causes of death:

The epidemiological transition refers to a shift in the patterns of disease and mortality that occurs as societies undergo social and economic development. This transition is characterized by several stages, each marked by distinct changes in the leading causes of death and disease burden. Here's an overview of the stages of epidemiological transition and the corresponding trends in causes of death over time:

Regional variations in mortality patterns: Emerging Economies:

Transitioning Disease Patterns: As countries undergo economic development, there may be a transition in mortality patterns, with a shift from infectious diseases to non-communicable diseases as leading causes of death.

Urbanization: Rapid urbanization can lead to lifestyle changes, including dietary shifts, decreased physical activity, and increased tobacco and alcohol consumption, contributing to rising mortality rates from non-communicable diseases.

Healthcare Access Disparities: Disparities in healthcare access and quality may persist within emerging economies, leading to varying mortality rates between urban and rural areas or different socio-economic groups.

Understanding these regional variations in mortality patterns is crucial for designing targeted public health interventions, allocating resources effectively, and addressing the specific health needs of diverse populations across the globe.

Death reporting and surveillance:

Cause-of-death reporting and surveillance is a crucial aspect of public health monitoring and epidemiological research. It involves the systematic collection, recording, analysis, and interpretation of data related to the causes of death within a population. Here's an overview of cause-of-death reporting and surveillance:

Death Registration Systems: Death registration systems are the foundation of cause-of-death reporting and surveillance. These systems vary across countries but typically involve the registration of deaths by civil registration authorities. Death certificates, completed by medical certifiers (e.g., physicians, coroners), are a key component of death registration systems.

Medical Certification of Cause of Death: Medical certification involves determining the cause(s) of death and completing the death certificate accordingly. Certifiers attribute the underlying cause of death (the disease or injury that initiated the train of events leading to death) and any contributing factors. Standardized coding systems, such as the International Classification of Diseases (ICD), facilitate consistent recording and analysis of causes of death.

Mortality Data Collection: Mortality data, including information on the deceased individual (e.g., age, sex, residence) and details of the cause(s) of death, are collected through death certificates and other administrative records. These data are compiled by vital statistics agencies or health departments at various levels (local, regional, national) and may be supplemented by additional sources, such as hospital records or autopsy reports.

Cause-of-Death Coding and Classification: Causes of death are coded using standardized classification systems such as the ICD. Each cause of death is assigned a specific code based on the underlying disease or injury. These codes enable aggregation and analysis of mortality data at local, national, and global levels, facilitating comparisons over time and across geographic regions.

Quality Assurance and Improvement: Quality assurance measures are essential to ensure the accuracy and reliability of cause-of-death data. Training and certification programs for medical certifiers, regular audits and reviews of death certificates, and feedback mechanisms can help improve the quality of cause-of-death reporting and certification practices.

Analysis and Interpretation: Mortality data are analyzed to identify trends, patterns, and disparities in causes of death within populations. Epidemiological research examines associations between mortality and various factors such as age, sex, socio-economic status, geographic location, and risk factors. Findings from cause-of-death surveillance inform public health policies, program planning, and resource allocation.

Use in Public Health Action: Cause-of-death data are used to monitor population health status, assess the burden of disease, prioritize health interventions, evaluate the impact of interventions and policies, and track progress towards health goals (e.g., Sustainable Development Goals). Surveillance of causes of death also helps identify emerging health threats and guide responses to epidemics or disasters.

In summary, cause-of-death reporting and surveillance are essential components of public health surveillance systems, providing critical information for understanding mortality patterns, identifying health priorities, and informing evidence-based public health action.

Importance of accurate cause-of-death reporting

Accurate cause-of-death reporting is essential for several reasons:

Public Health Surveillance: Accurate cause-of-death reporting forms the basis of public health surveillance systems, providing essential data for monitoring population health, identifying emerging health threats, and tracking trends in mortality over time. Surveillance data enable public health authorities to detect outbreaks, assess the impact of interventions, and allocate resources effectively to address health priorities.

Disease Burden Assessment: Accurate cause-of-death reporting allows for the estimation of disease burden within a population, including the relative contribution of different diseases and conditions to overall mortality. Understanding the burden of specific diseases informs health policies, resource allocation decisions, and research priorities aimed at reducing morbidity and mortality.

Health Policy Development: Reliable cause-of-death data are essential for developing evidence-based health policies and strategies aimed at preventing and controlling diseases, promoting population health, and improving healthcare delivery. Accurate reporting helps policymakers identify areas of need, set health priorities, and evaluate the effectiveness of interventions.

Evaluation of Health Interventions: Accurate cause-of-death reporting is crucial for evaluating the impact of public health interventions, healthcare programs, and policy initiatives. By tracking changes in mortality rates and cause-specific mortality over time, policymakers and researchers can assess the effectiveness of interventions and make informed decisions about resource allocation and programmatic adjustments.

Understanding the International Form of Medical Certificate on Causes of Death:

The International Form of Medical Certificate of Cause of Death is a standardized form used worldwide to record and report the cause of death. Here is the original format as recommended by the World Health Organization (WHO):

Medical Certificate of Cause of Death (Confidential)

1. Name of deceased :
2. Date of death :
3. Sex :
4. Age :

Disease or condition directly leading to death:

(This does not mean the mode of dying, such as heart failure, respiratory failure. It means the disease, injury, or complication which caused death.)

Due to (or as a consequence of):

Antecedent causes: Morbid conditions, if any, giving rise to the above cause (a), stating the underlying condition last):

Due to (or as a consequence of):

Antecedent causes:

Due to (or as a consequence of):

PART II:

Other significant conditions:
(Other significant conditions contributing to the death but not related to the disease or condition causing it)

Other significant conditions:
(Other significant conditions contributing to the death but not related to the disease or condition causing it)

Manner of death:

Natural

Accident

Suicide

Homicide

Pending investigation

Could not be determined

6. Autopsy: Was an autopsy performed?
   Yes

   No

   If yes, were the autopsy findings available prior to the completion of the cause of death?

   Yes

   No

7. Place of death:
   Hospital

   Inpatient

   Outpatient/ Emergency

   Home

   Other (specify): ……..

   Certifier:

   Name:

   Title:

   Date:

   Signature:

This form captures essential details about the deceased, the sequence of medical conditions leading to death, contributing factors, and circumstances surrounding the death. It ensures consistency in recording and reporting deaths, aiding in global health statistics and epidemiological research.

Annex-04

Medical Certificate of Cause of Death

Hospital Name | Hospital Code No. | Admission Reg. No. | Ward No.

Patient Name

Father's/Mother's Name

Address: House/Road (Name/No.) | Village/Area/Town | Union/Ward

Post Office | Post Code | Upazila/Thana | District

Sex: ☐ Female ☐ Male ☐ Third gender **Religion:** ☐ Islam ☐ Hindu ☐ Buddha ☐ Christian ☐ Other

Occupation: ☐ Service ☐ Business ☐ Govt. Service ☐ Student ☐ Housewife ☐ Retired ☐ Other

Date of Birth of Deceased (d d m m y y y y) | Age if DoB is not available (y y y m m) | Date of admission (d d m m y y y y)

Time of Admission (h h m m) | Date of Death (d d m m y y y y) | Time of Death (h h m m)

NID of Deceased/Spouse/Parents NID (< 18 years) ☐ Deceased ☐ Spouse ☐ Parents

Family Cell Phone number (If available)

Frame A: Medical data: Part 1 and 2

		Cause of death	Time interval from onset to death
1 Report disease or condition directly leading to death on line a	a		
Report chain of events in due to order (if applicable)	b	Due to:	
	c	Due to:	
State the underlying cause on the lowest used line	d	Due to:	
2 Other significant conditions contributing to death (time intervals can be included in brackets after the condition)			

Frame B: Other medical data

Was surgery performed within the last 4 weeks?	☐ Yes	☐ No	☐ Unknown.	**If yes please specify date of surgery** (d d m m y y y y)			
If yes please specify reason for surgery (disease or condition)							
Was an autopsy requested?	☐ Yes	☐ No	☐ Unknown.	**If yes were the findings used in the certification?**	☐ Yes	☐ No	☐ Unknown.

Manner of death

☐ Disease	☐ Assault	☐ Could not be determined	☐ Accident	☐ Legal Intervention	☐ Pending investigation	☐ Intentional self harm
☐ War	☐ Unknown.	**If external cause or poisoning:**			**Date of injury** (d d m m y y y y)	
Please describe how external cause occurred (If poisoning please specify poisoning agent)						

Place of Occurrence of the external cause

☐ At home	☐ Residential	☐ School, other institution, public administrative area	☐ Sports and athletics area	☐ Street and highway	☐ Trade and service area
☐ Industrial and construction area	☐ Farm	☐ Other place (please specify):			☐ Unknown

Fetal or infant Death

Multiple pregnancy	☐ Yes	☐ No	☐ Unknown;	**Stillborn?** ☐ Yes	☐ No	☐ Unknown
If death within 24h specify number of hours survived (h h)			Birth weight (in grams) (g g g g)			
Number of completed weeks of pregnancy (d d)			Age of mother (years) (y y)			
If death was perinatal, please state conditions of mother that affected the fetus and newborn						

For women of reproductive age

Was the deceased pregnant within past year?	☐ Yes	☐ No	☐ Unknown.
If yes, was she pregnant ☐ When she died	☐ Within the 42 days preceding her death	☐ Within 43 days up to 1 year preceding her death	☐ Exact pregnancy timing unknown
Did the pregnancy contribute to the death	☐ Yes	☐ No	☐ Unknown.

Name | Position | BMDC Reg. No.

Bangladesh Form No:

Signature with Date

Seal

Challenges in cause-of-death determination:

While cause-of-death determination is essential for public health surveillance and understanding disease burden, it can be challenging due to various factors. Some of the key challenges include:

Inaccurate or Incomplete Reporting: Death certificates may be incomplete or inaccurately filled out by certifiers, leading to errors in cause-of-death determination. Factors such as limited time, lack of training, or insufficient information about the deceased can contribute to incomplete or inaccurate reporting.

Diagnostic Uncertainty: Some deaths may involve complex medical conditions or multiple contributing factors, making it challenging to determine the underlying cause of death. Diagnostic uncertainty can arise from incomplete medical histories, limited diagnostic testing, or overlapping symptoms of different diseases.

Challenges in cause-of-death determination:

Lack of Standardization: There may be inconsistencies in cause-of-death determination and reporting practices across geographic regions, healthcare settings, and certifying physicians. The lack of standardized protocols and training for certifiers can contribute to variability in cause-of-death reporting.

Underreporting of Certain Causes: Some causes of death, particularly those associated with stigma, such as suicide, drug overdose, or HIV/AIDS, may be underreported or inaccurately recorded on death certificates. Underreporting can hinder accurate assessment of disease burden and effective public health interventions.

Interventions and Strategies for Reducing Mortality:

Reducing mortality rates requires a comprehensive approach involving various interventions and strategies targeting different causes of death and population groups. Here are some key interventions and strategies for reducing mortality:

Preventive Healthcare Services:

Promote regular health check-ups and screenings for early detection and management of chronic diseases, such as cancer, diabetes, and hypertension.

Encourage vaccination programs to prevent infectious diseases and reduce mortality rates from vaccine-preventable illnesses.

Implement preventive measures such as tobacco cessation programs, alcohol misuse prevention, and promotion of healthy lifestyles to reduce the risk of chronic diseases and injuries.

Case studies:

Study 1.
Name: Rafiq Ahmed
Age: 55

Sex: Male

Location: Dhaka, Bangladesh

Occupation: Office Clerk

Medical History: Rafiq had a history of untreated hypertension and was known to lead a stressful lifestyle due to his demanding job. He also had a poor diet high in salt and fats, contributing to his health issues. He had limited access to regular medical check- ups and was non-compliant with prescribed medications.

Clinical Presentation:

Rafiq was brought to the emergency department after collapsing at work. He presented with sudden weakness on the right side of his body, slurred speech, and loss of consciousness.

Diagnosis: A CT scan of the head revealed that Rafiq had suffered an ischemic stroke, caused by a blockage in an artery supplying blood to his brain. His blood pressure was critically high upon admission.

Medical Interventions:

Rafiq was admitted to the intensive care unit (ICU) and given thrombolytic therapy to dissolve the blood clot. Despite the medical intervention, he did not regain consciousness and remained in a critical state.

Cause of Death: Rafiq died two days later due to complications arising from the stroke. The primary cause of death was an ischemic stroke, with contributing factors being uncontrolled hypertension and poor lifestyle choices.

Implications: Rafiq's death highlights the critical need for effective management of chronic conditions like hypertension in Bangladesh. This case underscores the importance of regular health check-ups, medication adherence, and lifestyle modifications, including a healthy diet and stress management.

Public Health Perspective:

Awareness Campaigns: Increase public awareness about the risks of hypertension and the importance of regular monitoring.

Access to Healthcare: Improve access to primary healthcare services in urban and rural areas.

Preventive Measures: Promote lifestyle changes through community programs focusing on healthy eating, regular exercise, and stress reduction.

Study 2:

Name: Nusrat Jahan

Age: 28

Sex: Female

Location: Chittagong, Bangladesh

Occupation: School Teacher

Medical History: Nusrat had no significant past medical history and was generally in good health. She lived in a densely populated area of Chittagong, which experienced frequent mosquito infestations, especially during the monsoon season.

Clinical Presentation: Nusrat presented to the local clinic with high fever, severe headache, pain behind the eyes, muscle and joint pains, nausea, and a rash. Her symptoms began five days prior, and she initially thought it was just a common flu.

Diagnosis: Upon examination, the healthcare providers suspected dengue fever, a common mosquito-borne viral infection in the region. Blood tests confirmed low platelet count and positive dengue serology.

Medical Interventions: Nusrat was admitted to the hospital for supportive care, including intravenous fluids, pain relief, and close monitoring of her vital signs and platelet levels. Despite the interventions, her condition worsened with signs of dengue hemorrhagic fever, which included bleeding gums, severe abdominal pain, and difficulty breathing.

Cause of Death: Nusrat developed dengue shock syndrome, characterized by severe bleeding, shock, and organ failure. Despite aggressive treatment, she succumbed to her illness within a week of hospital admission. The primary cause of death was dengue shock syndrome, a severe complication of dengue fever.

Implications: Nusrat's death highlights the severe impact of mosquito-borne diseases like dengue fever in tropical and subtropical regions. It underscores the need for improved public health measures and vector control strategies to prevent outbreaks.

Public Health Perspective:

Vector Control: Implement comprehensive mosquito control programs, including insecticide spraying and elimination of standing water.

Public Education: Educate the community about preventing mosquito bites, recognizing symptoms of dengue, and seeking early medical attention.

Healthcare Infrastructure: Strengthen healthcare infrastructure to manage and treat dengue cases effectively, including rapid diagnostic facilities and availability of supportive care.

Interactive Activities and Discussion

Activity 1: Case Study Analysis:

Objective: Understand the various causes of death through real-life scenarios.

Instructions:

1. Divide participants into small groups and provide each group with a different case study (similar to the ones previously discussed: heart disease, tuberculosis, road traffic accident, etc.).

Ask each group to analyze their case study, focusing on:

The primary and contributing causes of death.

The social, economic, and environmental factors involved.

Possible preventive measures and interventions.

Each group presents their findings to the larger group, followed by a discussion on common themes and differences across the case studies.

Discussion Questions:

What were the most significant factors contributing to the cause of death in your case study?
How might early intervention have altered the outcome?
What public health strategies could prevent similar deaths in the future?

Activity 2: Role-Playing Debate:

Objective: Explore different perspectives on public health policies and their impact on reducing mortality.

Instructions:

Assign roles to participants (e.g., healthcare provider, public health official, government policymaker, community member).

Present a scenario: "The government is considering implementing a nationwide vaccination program against a specific infectious disease."

Have each role present their views on the program, considering aspects like cost, accessibility, public acceptance, and potential benefits.

Conduct a moderated debate, encouraging participants to discuss and defend their positions.

Discussion Questions:
What are the main arguments for and against the vaccination program?
How do different stakeholders' perspectives influence public health decisions?

What compromises or solutions can be proposed to address concerns? **Activity 3: Data Interpretation and**

Visualization:
Objective: Enhance skills in interpreting and presenting health data related to causes of death.

Instructions:

1. Provide participants with raw data sets on causes of death from a reliable source (e.g., WHO or CDC).
2. Ask participants to analyze the data, identifying trends, and patterns (e.g., leading causes of death by age group, gender, or region).
3. Have participants create visual representations of the data (e.g., graphs, charts, infographics).
4. Each participant or group presents their visualizations, explaining their findings and the implications for public health.

Discussion Questions:

What trends are most apparent in the data?

How can data visualization aid in communicating public health information?

What additional data would be useful to better understand the causes of death?

Activity 4: Community Health Strategy Planning

Objective: Develop comprehensive strategies to address specific health issues in a community setting.

Instructions:

1. Divide participants into small groups and assign each group a specific health issue (e.g., cardiovascular disease, respiratory infections, road traffic accidents).
2. Ask each group to develop a community health strategy to reduce mortality from their assigned issue. Strategies should include:

   Prevention programs

   Public education campaigns

   Policy recommendations

   Healthcare improvements

   Groups present their strategies, followed by a feedback session where other participants provide suggestions and insights.

Discussion Questions:
What are the key components of your community health strategy?

How can different sectors (e.g., healthcare, education, government) collaborate to implement your strategy?

What challenges might you face in implementing your strategy, and how would you address them?

Activity 5: Interactive Quiz

Objective: Reinforce knowledge on the causes of death and related public health concepts.

Instructions:

Prepare a set of multiple-choice and open-ended questions related to causes of death.

Use an interactive quiz platform (e.g., Kahoot, Quizizz) to conduct the quiz.

After each question, discuss the correct answer and provide additional information to enhance understanding.

Sample Questions:

What is the leading cause of death worldwide?
How can hypertension contribute to mortality?
What public health measures are most effective in reducing traffic-related deaths?

Discussion Questions:

Were there any surprising facts or statistics in the quiz?
How can knowledge of leading causes of death inform public health policies?
What personal and community actions can be taken to reduce mortality from common causes of death?

Conclusion and Future Directions:

Understanding the causes of death is crucial for improving public health and implementing effective preventive measures. The leading causes of death, such as non- communicable diseases (NCDs) like heart disease, stroke, and diabetes, infectious diseases like tuberculosis and dengue fever, and external factors like road traffic accidents, highlight the diverse challenges faced by healthcare systems globally. These cases demonstrate that mortality is influenced by a complex interplay of medical, socio- economic, and environmental factors.

The case studies presented underscore several key points:

Prevention and Early Detection: Chronic conditions such as hypertension and diabetes require early detection and consistent management to prevent fatal outcomes. Public health campaigns emphasizing regular check-ups and healthy lifestyles are essential.

Access to Healthcare: Equitable access to quality healthcare services is vital. Many deaths, especially in low-income regions, can be prevented with timely and adequate medical care.

Public Health Infrastructure: Strengthening publichealth infrastructure to handle infectious disease outbreaks and manage chronic diseases effectively is necessary. This includes better diagnostic facilities, improved healthcare delivery systems, and trained healthcare professionals.

Education and Awareness: Public education on health risks andpreventive measures is crucial. Awareness campaigns about the dangers of smoking, unhealthy diets, and the importance of vaccinations can significantly reduce mortality rates.

Policy and Regulation: Effective policies and regulations, such as traffic laws, smoking bans, and environmental protection measures, play a critical role in reducing deaths from accidents and pollution-related illnesses.

Future Directions:

To further reduce mortality rates and improve global health outcomes, the following future directions should be considered:

Innovative Healthcare Solutions:

Telemedicine: Expanding telemedicine services can improve access to healthcare, especially in remote and underserved areas.

Digital Health Technologies: Utilizing digital health tools, such as mobile health applications and wearable devices, can help in the early detection and management of diseases.

Research and Development:

Disease Prevention and Treatment: Ongoing research into vaccines, medications, and treatments for both infectious and non-communicable diseases is essential. Investing in R&D can lead to breakthroughs that save lives.

Health Data Analytics: Leveraging big data and analytics can provide insights into health trends, identify at-risk populations, and inform targeted interventions.

Global Health Initiatives:

International Collaboration: Strengthening international collaboration and funding for global health initiatives can help combat diseases that cross borders, such as pandemics and emerging infectious diseases.

Health Equity: Addressing health disparities through global initiatives ensures that vulnerable populations receive the necessary resources and support.

Community-Based Interventions:

Local Health Programs: Implementing community-based health programs that focus on education, preventive care, and lifestyle changes can significantly impact public health.
Engaging Community Leaders: Involving local leaders in health initiatives can enhance community trust and participation.

Environmental and Social Determinants:

Climate Change Mitigation: Addressing environmental factors such as air pollution and climate change is crucial for reducing respiratory and other environmentally-related diseases.

Socioeconomic Improvements: Enhancing living conditions, education, and economic opportunities can lead to better health outcomes and lower mortality rates.

By addressing these areas, we can make significant strides in reducing mortality rates and improving the overall health and well-being of populations worldwide. Continuous efforts in prevention, healthcare access, policy implementation, and community engagement are essential for a healthier future.

Bibliography

WHO online training tool at: http://apps.who.int/classifications/apps/icd/icd10training/.

Core curriculum of certificates of underlying causes of death at
http://www.cdc.gov/inchs/data/icd9/CurriculumCertification03-08-078.pdf.

Causes of death certification information paper (Australia)

Hand books for doctors on causes of death certification, MIS, DGHS, BD.