

## MODULE-VI, CNS MODULE 4th Year MBBS Behavioral Sciences and Lifestyle

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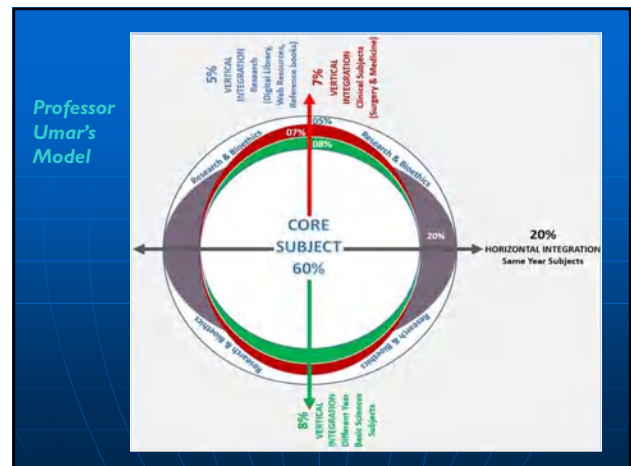
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**Vision & Mission of RMU**

**Vision**  
Highly recognized and accredited center of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable.

**Mission Statement**  
To impart evidence-based research-oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

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## Sequence Of Lecture

- |                                    |           |
|------------------------------------|-----------|
| 1. Core concepts                   | 24 slides |
| 2. Vertical Integration            | 01 slides |
| 3. Horizontal Integration          | 01 slides |
| 4. Family Medicine                 | 1 slide   |
| 5. Bioethics                       | 1 slide   |
| 6. Relevant Research               | 1 slide   |
| 7. EOLA(End of lecture assessment) | 1 slide   |
| 8. Suggested Readings              | 1slide    |

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## Learning Objectives

By the end of the session, students will be able to

1. Describe behavior and its dynamics
2. Identify types of emotions
3. Identify and analyze the various ways in which emotions are expressed and communicated
4. Evaluate roles of emotions in health and disease
5. Elaborate control of emotions
6. Define motivation and incentives

Core Content

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Core Content

## BEHAVIOUR

The way one conducts oneself.  
The treatment of others.  
Response to others.

### BEHAVIORAL MEDICINE

"Field of scientific research concerned with the effects of behavior on physical health and illness.  
Developed in 1970, it focuses on the occurrence, prevention, control of physical disorders that are caused or aggravated by social conditions, behavior, thoughts, and emotions".

### BEHAVIORAL SCIENCES

"Field of study that is primarily concerned with the understanding, prediction, and control of human behavior, especially those types of behavior that develop out of inter personal relations".

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Core Content

## Dynamics of Behavior

- Health Behavior
- Illness Behavior
- Treatment Behavior



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Core Content

## Responses

- Physical responses--- habits, skills
- Organic responses--- emotions, feelings, tension
- Intellectual responses--- perception, thinking, reasoning

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Core Content

## Causes of Behavior

- Environmental stimuli--- sight, smell, touch
- Emotions and feelings--- arise within body
- Needs--- wants, desires, urges
- Motivation--- inner force driving an individual to a certain action
- Intellectual perception--- thinking and reasoning influences behavior.

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Core Content

## Identify Emotions

- The word '*emotion*' is derived from the Latin word "*Emovere*", which means to be 'stirred up,' or 'to stimulate'. Emotions literally jerk a person.
- Due to closeness of emotion with feeling, the quantity of emotion increases with the increase in feeling and the body gets evoked or stimulated. This stimulated condition is known as '*emotion*'.

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Core Content

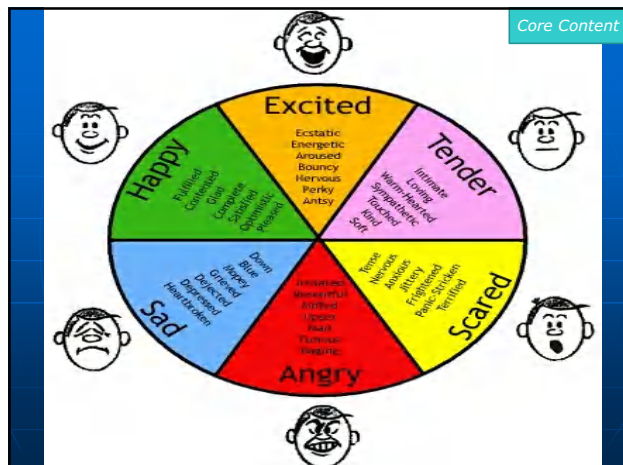
## Types Of Emotions:

1. Identify and analyze the various ways in which emotions are expressed and communicated

6 Basic types of Emotions:

- Happiness
- Sadness
- Excitement
- fear
- Anger
- Surprise

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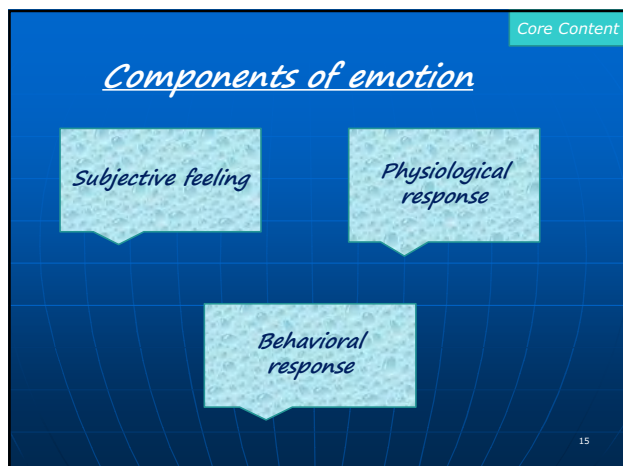
Core Content

### Characteristics of emotions

- Accompanied by aroused state in the organism.
- Usually accompanied by physiological changes.
- A lot of energy is released in every emotion, except grief.

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Core Content

### Subjective feeling

The grid shows six facial expressions corresponding to the following emotions:

- Happy
- Sad
- Fear
- Anger
- Surprise
- Disgust

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Core Content

- Researchers believe that the experience of emotions can be highly subjective.
- Our unique experience of the emotions is probably much more multi-dimensional.
- We don't always experience 'pure' forms of emotion. Mixed emotions over different events in our lives are common.

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Core Content

### Physiological response

- Many physical reactions we experience during an emotion are controlled by sympathetic nervous system, a branch of autonomic nervous system. It controls involuntary body responses such as blood flow and digestion.
- The Amygdala is a tiny, almond shaped structure that has been linked to motivational states, as well as memory & emotion.
- Researches proved that when people are shown threatening images, the amygdala becomes activated. Damage to amygdala impairs the fear response.

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**Behavioral response**

- This is the actual expression of emotion. We spend a significant amount of time interpreting the emotional expressions of people around. And our ability to accurately understand these is tied to our emotional intelligence.
- Many expressions are universal, such as smile indicates happiness or pleasure.

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**ROLE Of Emotions On Health and Disease**

*Emotions play a crucial role in both physical and mental health, significantly impacting overall well-being.*

- Positive Impact of emotions on health
- Negative impact of emotions on health

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**Positive Impact of Emotions on Health:**

1. Stress reduction: Positive emotions like happiness, gratitude, and relaxation can mitigate stress.
2. Immune system boost: Studies show that positive emotions strengthen the immune system.
3. Pain management: Emotions like joy and laughter can reduce pain perception.
4. Social connections: Positive emotions foster social connections, crucial for mental and physical health.
5. Resilience: Emotional well-being enhances resilience, aiding in coping with adversity.

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**Negative Impact of Emotions on Health:**

1. Stress and anxiety: Chronic stress and anxiety can lead to cardiovascular disease, diabetes, and mental health disorders.
2. Inflammation: Negative emotions can trigger inflammation, increasing disease risk.
3. Weakened immune system: Chronic stress and negative emotions weaken the immune system.
4. Mental health disorders: Unmanaged emotions contribute to depression, anxiety, and other mental health issues.
5. Behavioral problems: Negative emotions can lead to unhealthy coping mechanisms, such as substance abuse.

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**Emotions and Disease:**

1. Cardiovascular disease: Chronic stress, anger, and anxiety increase cardiovascular risk.
2. Cancer: Stress and negative emotions may weaken immune function, potentially increasing cancer risk.
3. Diabetes: Chronic stress and emotional distress increase diabetes risk.
4. Mental health disorders: Unmanaged emotions contribute to conditions like depression and anxiety.
5. Neurological disorders: Emotions impact neurological conditions like Parkinson's disease and multiple sclerosis.

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**Managing Emotions for Better Health:**

1. Mindfulness and meditation
2. Exercise and physical activity
3. Social support networks
4. Journaling and expressive writing
5. Seeking professional help when needed

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## *Motivation and Incentives*

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**Motivation** is the driving force that initiates, directs, and sustains behavior towards achieving a goal or fulfilling a need.

There are two primary types of motivation:

1. *Intrinsic motivation: This arises from within an individual, often driven by personal interests, values, or satisfaction.*
2. *Extrinsic motivation: This is influenced by external factors, such as rewards, recognition, or social pressure.*

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### Motivation can be further categorized into:

*Positive motivation: Encourages desirable behaviors through rewards or positive reinforcement.*

*Negative motivation: Avoidance of undesirable consequences or punishment.*

*Understanding motivation is essential in various contexts, including psychology, education, business, and personal development, as it plays a crucial role in driving success and achievement.*

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An **Incentive** is a reward, benefit, or motivator that encourages individuals or organizations to take a specific action, achieve a particular goal, or exhibit desired behavior.

*Incentives aim to stimulate motivation, productivity, and performance by providing a tangible or intangible benefit.*

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### Types of incentives:

1. *Monetary incentives: Financial rewards, bonuses, salaries, or profit-sharing.*
2. *Non-monetary incentives: Recognition, praise, promotions, or titles.*
3. *Social incentives: Social status, prestige, or sense of belonging.*
4. *Psychological incentives: Personal satisfaction, enjoyment, or sense of accomplishment.*
5. *Physical incentives: Goods, services, or tangible rewards*

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*Incentives are used in various contexts, including:*

1. *Business and management*
2. *Marketing and sales*
3. *Education and training*
4. *Healthcare and wellness*
5. *Personal development and goal-setting.*

*Effective incentives align with individual values and organizational goals, driving desired outcomes and behavior.*

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Family Medicine

**FAMILY MEDICINE**

**Fifty Years of Contributions of Behavioral Science in Family Medicine**

Over this time, the family physician's role in treating behavioral health concerns has changed from primary responsibility to new models of collaboration and team care. Likewise, behavioral scientists in family medicine have enhanced their scope of attention from the foundational focus on family dynamics and behavioral health care, to physician well-being, contextual care, and team-based communication. The educational and clinical functions of behavioral science faculty have expanded, with significant contributions to research and scholarly work that have defined academic family medicine, and development of leadership roles within clinical teams, academic departments and centers, and larger health systems.

<https://www.stfm.org/familymedicine/vol49issue4/Baird296>

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Bioethics

**Research Ethics**

- Patients' Rights
- Equity of resources
- Confidentiality of the patients
- Patient Safety
- Conflict of Interests
- Informed Consent
- Dealing with the opposite sex

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Research

**Research**

**Lifestyle Behavioral Patterns Among Male and Female University Students of Pakistan**

Apur Datta - Journal of Health Development, 2018  
DOI: 10.1002/jhde.11000

Apur Datta - Journal of Health Development

Overview | Introduction | Abstract | References (17)

**Abstract**

The following study was conducted to analyze lifestyle behavioral patterns among university students. The sample of 200 students (100 male and 100 female) were selected through the procedure of simple random sampling. The first of data collected was self-administered questionnaire on the Lifestyle questionnaire and Lifestyle Assessment questionnaire from students university (past, present or future). The data were statistically analyzed for applying t-test to find the difference between lifestyle behavioral patterns of male and female students and difference between lifestyle behavioral patterns of public and private university students. Results showed that there is difference between male and female lifestyle in some aspects of behavioral patterns, particularly their physical activity level and health management. There is also difference between the public and private university students lifestyle behavioral patterns. Some factors in their management of smoking style such as brand cigarettes.

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EOLA

*A 30-year-old woman has been feeling sad and irritable for the past two months. She reports losing interest in activities she once enjoyed, poor concentration, and changes in her appetite. She denies suicidal ideation. Based on behavioral science principles, which of the following best describes the primary emotion being experienced by the patient?*

A) Fear  
B) Excitement  
C) Anger  
D) Happiness  
E) Sadness

*Answer: E) Sadness*

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AI

**Bridging the Human-AI Gap: The Indispensable Role of Behavioral Science**

by Jennifer Weeks - 2023-12-01

\* The evolution of Artificial Intelligence (AI) and Machine Learning (ML) holds great promise in improving how people work and live.

\*For every scary or risky possibility we can imagine in our future alongside the robots, there are a hundred ways we can imagine AI improving our lives. From treating and preventing diseases, to increasing access to education, to supporting mental health, to unlocking global collaboration, and countless others – the potential that AI brings leaves us nothing short of breathless. However, in order to live up to this incredible potential, the development of AI tools designed to augment humans cannot be driven by technology alone – it must be grounded in an understanding of human psychology and behavior.

<https://beworks.com/blog/bridging-the-human-ai-gap-the-indispensable-role-of-behavioral-science>

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**How to Access Digital Library**

**Steps to Access HEC Digital Library**

1. Go to the website of HEC National Digital Library.
2. On Home Page, click on the INSTITUTES.
3. A page will appear showing the universities from Public and Private Sector and other Institutes which have access to HEC National Digital Library HNDL.
4. Select your desired Institute.
5. A page will appear showing the resources of the institution
6. Journals and Researches will appear
7. You can find a Journal by clicking on JOURNALS AND DATABASE and enter a keyword to search for your desired journal.

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