



UNIT 4

Anxiety and Psychosomatic Illnesses

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Opening Case study

Mr. Walced, a 26-year-old dental patient, presents with severe jaw pain and frequent headaches. Despite thorough clinical and radiographic examinations, no structural abnormalities are found. The patient reveals high stress levels due to work pressure and family issues. Upon further evaluation, the dentist identifies anxiety as the root cause of the symptoms. How does this case highlight the intricate connection between emotional stress and physical symptoms? How important is it to recognise psychosomatic illnesses in clinical practice?



Ms. Rama, a 32-year-old marketing executive, presents to her primary care physician with complaints of persistent abdominal pain, bloating, and alternating diarrhea and constipation over the past six months. She reports that these symptoms worsen during periods of high stress, particularly around work deadlines or family conflicts. Despite undergoing extensive medical testing—including blood work, stool analysis, colonoscopy, and imaging—no organic cause has been identified. In addition to her gastrointestinal symptoms, Rama describes feeling “on edge” all the time, difficulty concentrating, irritability, and disturbed sleep. She admits to excessive worry about her health and work performance, often fearing she might have a serious illness despite reassurances from her doctors. Rama also mentions occasional muscle tension in her neck and shoulders, which sometimes leads to tension-type headaches. Rama is unmarried and lives alone. She works long hours in a high-pressure job and has limited social support. She reports drinking 3–4 cups of coffee daily. She does not smoke and has no significant past medical history. Try to consider the following questions:

**Differential Diagnosis:**

Based on the patient's presentation, what are the possible diagnoses? How would you differentiate between an organic gastrointestinal disorder (e.g., inflammatory bowel disease) and a functional condition like irritable bowel syndrome (IBS)?

Psychological Contribution:

What psychological factors might be contributing to Rama's symptoms? How could chronic anxiety and stress exacerbate her gastrointestinal issues?

Pathophysiology:

Explain the role of the gut-brain axis and the hypothalamic-pituitary-adrenal (HPA) axis in the development of Rama's symptoms. How might prolonged stress affect her autonomic nervous system and gastrointestinal function?

Management Plan:

Outline a comprehensive treatment plan for Rama, incorporating both non-pharmacological and pharmacological interventions. How would you address her anxiety and psychosomatic symptoms while ensuring her physical health is not overlooked?

Interdisciplinary Collaboration:

Which healthcare professionals might be involved in Rama's care, and how would they collaborate to provide holistic treatment? For example, how could a psychologist, gastroenterologist, and nutritionist work together to manage her condition?

Ethical Considerations:

What ethical challenges might arise when treating a patient like Rama, who has medically unexplained symptoms? How can you ensure that her symptoms are taken seriously while avoiding unnecessary testing or treatments?

What is Anxiety

- Psychological state with:
 - Tension, worried thoughts, fear.
 - Physical changes (↑ heart rate, ↑ blood pressure).
- Often arises in anticipation of **future threats/challenges**.
- Forms of anxiety:
 1. Generalized Anxiety Disorder (GAD)
 2. Panic Disorder
 3. Social Anxiety Disorder
 4. Specific Phobias

Anxiety in Medical & Dental Settings

- Highly prevalent due to fear of illness or procedures.
- **15–20%:** significant anxiety before/during medical visits.
- **Up to 30%** in dental settings.
- Consequences:
 - Avoidance behaviors.
 - Poor adherence to treatment.
 - Exacerbation of conditions.

Psychosomatic Illnesses

- Disorders influenced by psychological factors (stress, anxiety, depression).
- Illustrate the **mind–body connection**.
- Examples:
 - Irritable Bowel Syndrome (IBS) → abdominal pain, diarrhea.
 - Chronic Pain Syndromes (Fibromyalgia, chronic fatigue syndrome(CFS), Tension headaches).
 - Hypertension & Cardiovascular Disease(↑ BP and increase risk of heart disease).
 - Dermatological Disorders (Eczema, Psoriasis, Acne).

Pathophysiology

- Stress activates:
 - **HPA Axis (Hypothalamic–Pituitary–Adrenal)**
 - **Autonomic Nervous System**
- Leads to release of cortisol & adrenaline.
- Effects:
 - Disrupted body functions.
 - Exacerbation of psychosomatic symptoms.

Early Identification

- **Early Identification**
- Routine screening for anxiety & stress in clinical/dental visits.
- Use of tools like **GAD-7 Questionnaire**.
- Benefits of early detection:
 1. Preventing Escalation.
 2. Improving treatment outcomes.
 3. Reducing Health care cost.
 4. Enhancing Quality of Life .

Benefits of Early Identification

1. Preventing Escalation

Early detection prevents progression into chronic conditions.

Example: Treating dental anxiety early prevents severe oral health issues.

2. Improving Treatment Outcomes

Patients receiving psychological support alongside medical care are more likely to adhere to treatment and achieve better results.

3. Reducing Healthcare Costs

Early intervention lowers the need for costly emergency or prolonged treatment due to untreated anxiety/psychosomatic symptoms.

4. Enhancing Quality of Life

Addressing psychological roots of physical symptoms reduces suffering, improves functioning, and enhances well-being.

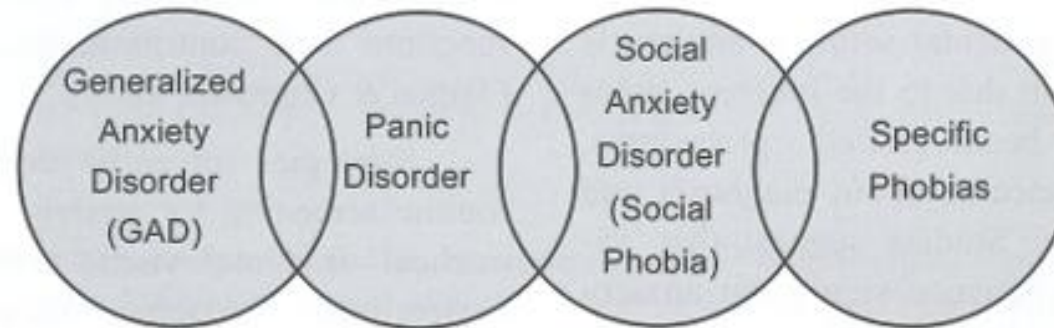
Key learning point

Anxiety is not just a mental health issue; it has profound effects on physical health and can manifest as somatic symptoms.

2. Types of Anxiety Disorders

Anxiety disorders encompass a range of mental health conditions marked by persistent and excessive fear, worry, or anxiety that disrupts

daily functioning. Below is a brief overview of the most common types:



Types of anxiety disorders

Anxiety Disorders & Physiological Mechanisms

- **Generalized Anxiety Disorder (GAD)**
- Persistent, excessive worry (work, health, relationships).
- No clear reason for concern.
- Chronic Anxiety, often without a specific trigger.
- Symptoms: muscle tension, fatigue, difficulty concentrating.

Panic Disorder

- Recurrent, sudden panic attacks (intense fear/discomfort).
- Peak within minutes.
- Symptoms: palpitations, sweating, trembling, chest pain, shortness of breath, Fear of losing control or dying.
- Individuals may develop a fear of future attacks (anticipatory anxiety).

- **Social Anxiety Disorder (Social Phobia)** Intense fear of social situations.
- Fear of judgment, embarrassment, or scrutiny.
- Avoidance of interactions, fear of public speaking.
- Extreme self-consciousness in daily life.
- **Specific Phobias**
- Irrational fear of specific objects/situations (heights, spiders, flying).
- Fear disproportionate to actual danger.
- Leads to avoidance behaviors.

Other Related Disorders

- **Obsessive-Compulsive Disorder (OCD):**
 - Intrusive, unwanted thoughts (obsessions: fear of contamination, need for symmetry or aggressive thoughts).
 - Repetitive behaviors (compulsions: excessive hand washing, checking, counting or rituals).
- **Post-Traumatic Stress Disorder (PTSD):**
 - After trauma (combat, disasters, accidents).
 - Symptoms: flashbacks, nightmares, severe anxiety, intrusive thoughts.

Physiological Mechanisms of Anxiety

- **Physiological Mechanisms of Anxiety**
- Anxiety = interaction of **brain, nervous system, endocrine system**.
- Main mechanisms:
 1. **Hypothalamic-Pituitary-Adrenal (HPA) Axis**
 2. **Autonomic Nervous System (ANS)**
 3. **Neurotransmitter Imbalance**

HPA Axis

- Stress → Hypothalamus releases CRH → Pituitary releases ACTH → Adrenal glands release Cortisol.
- Cortisol: ↑ glucose for energy, ↓ digestion & immunity, ↑ alertness.
- Chronic activation(↑ Chortisol) → depression, obesity, memory issues.
- This also seen for depression and schizophrenia.

Autonomic Nervous System (ANS)

- **SNS (“Fight-or-Flight”)**: ↑ HR, dilated pupils, ↑ blood to muscles.
- **PNS (“Rest-and-Digest”)**: returns body to calm state.
- Anxiety → **SNS overactivation** → palpitations, sweating, hyperventilation, chronic stress.

Neurotransmitter Imbalance

- **Serotonin:** mood, sleep, appetite → ↓ = anxiety & depression.
- **GABA:** inhibits overactivity → ↓ = excessive neuronal activity, panic attacks.
- **Dopamine/Norepinephrine:** imbalance contributes to anxiety symptoms.

Anxiety Disorders, Stress, and Their Impact on Physical Health

- **Psychological Symptoms of Anxiety:**
- **Excessive Worry**
- **Irritability**
- **Difficulty Concentrating**
- **Fear of Losing Control**
- **Avoidance of Triggers**
- **Compulsions (e.g., OCD)**
- **Hypervigilance**

Physical Symptoms of Anxiety

- Restlessness
- Fatigue
- Muscle Tension
- Sleep Disturbances
- Gastrointestinal Issues (IBS)
- Increased Heart Rate (Palpitations)
- Sweating & Trembling

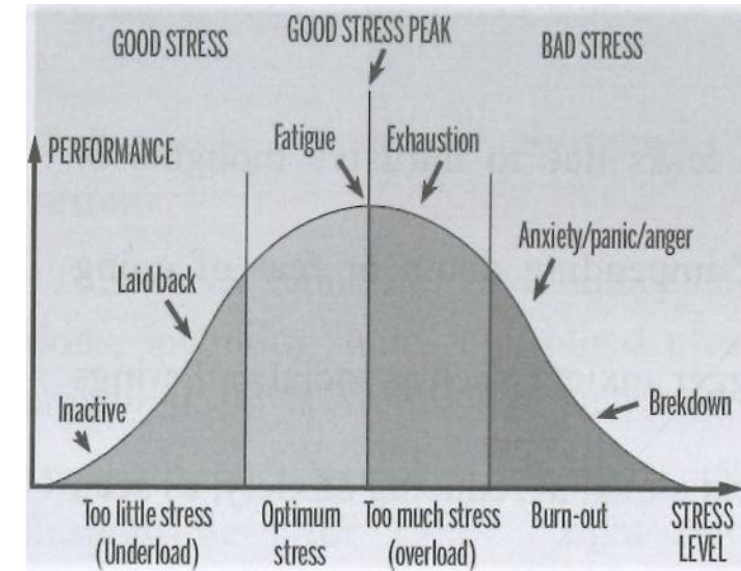
Good Stress vs. Bad Stress

Good Stress (Eustress):

- Short-term, Motivating, energizing, enhances focus, boosts energy.
- Example: Preparing for an important presentation.
- enhances focus, boosts energy levels, and improves performance by activating the body's "fight or flight".

Bad Stress (Distress):

- Long-term(Chronic), overwhelming stress that persists over time, often stemming from uncontrollable or negative situations like financial struggles, work overload, or unresolved conflicts.
- leading to **negative health effects**: high cortisol, poor immunity, chronic diseases.
- The key difference lies in the intensity, duration, and perception of the stressor-eustress empowers, while distress debilitates.



The Importance of Stress Perception and Its Impact on Physical Health

- **Research shows** that viewing stress as a challenge rather than a threat can reduce its harmful effects.
- People who perceive stress as a **challenge** tend to cope better.
- **Reframing stress** can have protective effects on cardiovascular health.

Keller et al. (2012) Study

- A landmark study by **Keller et al. (2012)** found:
 - Individuals who perceive stress as harmful have a **43% increased risk of premature death.**
- **Negative perception of stress** is linked to poor health outcomes.
- The study emphasizes the importance of **how stress is viewed.**

Stress and Cardiovascular Events

- A study published in **The Lancet (2013)** found:
 - High-stress individuals with a **positive outlook** on their ability to cope had fewer cardiovascular events.
- **A positive perception of stress** lowers the risk of heart disease.
- **Mindset** plays a significant role in buffering stress-related damage.

Chronic Stress and Heart Health

- **Chronic stress perception** has been directly linked to heart health.
- **Negative stress perception** contributes to:
 - **Hypertension**
 - **Inflammation**
 - **Arterial stiffness**
- These factors are **precursors to heart disease**.

Key learning point

Anxiety and psychosomatic illnesses often coexist and require a holistic approach to treatment.

Human diversity

Global studies show varying prevalence rates of anxiety and psychosomatic illnesses across cultures. For instance, collectivist societies (e.g., Arabic culture) may report fewer cases of anxiety due to stronger social support systems, while individualistic societies often face higher rates.

Cultural beliefs about mental health can influence how patients express and seek help for anxiety-related symptoms.

Psychosomatic Illnesses: Bridging Mind and Body

- Psychosomatic (psychophysiological) disorders occur when psychological factors (stress, emotions, mental health) significantly affect the development or worsening of physical symptoms.
- These disorders highlight the deep mind-body connection, where emotional distress can cause tangible physical symptoms.

Chronic Anxiety Effects:

- Linked to the "fight or flight" response, activating the sympathetic nervous system and releasing cortisol and adrenaline.
- While helpful short-term, chronic activation leads to:
- Headaches, GI dysfunction, respiratory issues, and immune suppression.
- This creates a vicious cycle of anxiety and symptoms.

- **Cardiovascular System**

- Chronic anxiety raises cortisol, heart rate, and blood pressure.
- Can lead to hypertension, heart disease, and inflammation in blood vessels.
- Long-term strain may cause structural heart changes (e.g., left ventricular hypertrophy).

- **Immune System:**

- Chronic stress suppresses immune function. Leads to greater risk of infections and autoimmune disorders. High cortisol disrupts white blood cell function and delays healing. Anxiety linked to impaired inflammatory responses.

- ***Digestive System:***

- Anxiety affects digestion via the gut-brain axis (bidirectional communication).
- Chronic anxiety may cause:
- IBS, acid reflux, nausea, diarrhea
- Stress hormones alter motility and sensitivity → irregular digestion
- Dysbiosis (gut bacteria imbalance) worsens symptoms and promotes systemic inflammation.

- **Endocrine System:**
- Chronic anxiety leads to continuous stress hormone release.
- Elevated cortisol disrupts: Hormonal balance, thyroid function, reproductive health.
- Can cause insulin resistance → risk of type 2 diabetes.
- **In women:** disrupts menstrual cycle and fertility.
- **In men:** reduces testosterone, impairs sexual function.

- ***Musculoskeletal System:***
- Muscle tension is a hallmark of chronic anxiety.
- Initially protective, but prolonged tension causes:
- Chronic pain (e.g., headaches, back pain, TMJ).
- Discomfort, fatigue, limited mobility.
- Reduced quality of life.

Biopsychosocial Model

- **Biological Factors:**
- **Genetic Predisposition:** Genetic susceptibility to psychosomatic disorders (e.g., family history of IBS or migraines).
- **Neuroendocrine Dysregulation:** Chronic stress disrupts the **HPA axis**, affecting cortisol, immunity, inflammation, and pain perception.
- **Neurotransmitter Imbalance:** Dysregulation of **serotonin**, **dopamine**, and **GABA** affects mood and physical symptoms (e.g., low serotonin = depression, IBS).

- **Psychological Factors:**
- **Stress and Anxiety:** Lead to hyperarousal of the **autonomic nervous system**, causing muscle tension, GI distress, and heightened pain sensitivity.
- **Cognitive Appraisal:** How stressors are perceived; **catastrophizing** worsens pain in conditions like **TMJ** or **tension-type headaches**.
- **Psychological Factors:**
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Diagnosis Challenges

- **Diagnosing psychosomatic disorders** is challenging due to the **overlap** between **physical symptoms** and those of **organic diseases**.
- Differentiation requires **careful evaluation** and often **interdisciplinary collaboration**.

1. Comprehensive Patient History:

Crucial for identifying **psychological contributors**.

Includes questions on **stress, life events, coping, and mental health history**.

Assess if symptoms **worsen with stress** or **improve with relaxation**.

2. Ruling Out Organic Causes:

Essential to rule out **organic diseases** using tests and imaging.

Example: **IBS pain** must be differentiated from **IBD**.

3. Interdisciplinary Collaboration:

- Involves **physicians, psychiatrists, psychologists, and specialists**.
- Ensures comprehensive diagnosis and treatment.
- Mental health professionals explore psychological factors; medical specialists manage **organic conditions**.

4. Patient-Centered Approach:

- Acknowledges **real symptoms** without invalidating the patient.
- Builds **trust** and improves **outcomes**.

Key learning point

Chronic anxiety disrupts homeostasis, leading to systemic effects such as hypertension, immune dysfunction, and gastrointestinal disorders.

Critical thinking

How can healthcare providers balance skepticism with empathy when dealing with patients reporting unexplained physical symptoms?

Managing Anxiety and Psychosomatic Symptoms

- Anxiety and psychosomatic symptoms can significantly impact an individual's quality of life.
- Effective management strategies include **non-pharmacological interventions, pharmacological treatments, and lifestyle modifications.**
- A combination of these approaches often yields the best outcomes.

Non-Pharmacological Interventions

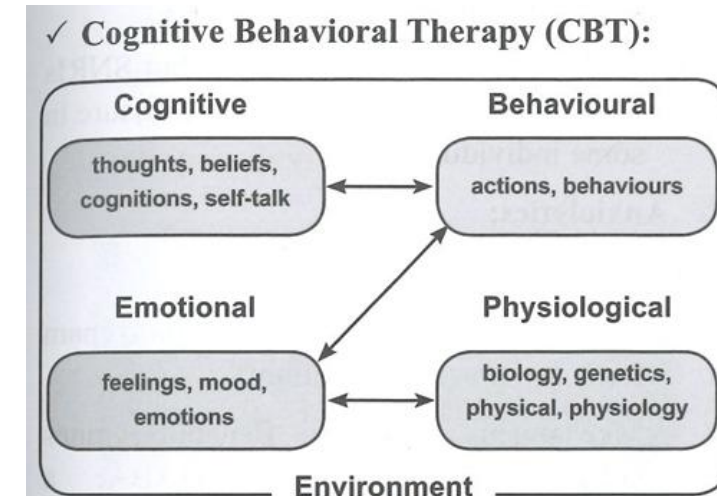
Cognitive Behavioral Therapy (CBT)

Description: Widely used, evidence-based psychological treatment focusing on identifying and modifying negative thought patterns and maladaptive behaviors contributing to anxiety and psychosomatic symptoms.

How It Works:

Cognitive Restructuring: Helps individuals challenge and replace irrational or distorted thoughts (e.g., catastrophizing) with balanced, realistic ones.

Behavioral Activation: Encourages engagement in activities that reduce avoidance behaviors and promote coping skills.



- **Applications:** Effective for **generalized anxiety disorder (GAD)**, **panic disorder**, **social anxiety disorder**, and psychosomatic conditions like **irritable bowel syndrome (IBS)** and **chronic fatigue syndrome (CFS)**.
- **Benefits:** Reduces anxiety symptoms, equips patients with **long-term coping strategies** to manage stress, and prevents **symptom recurrence**.

Relaxation and Mindfulness Techniques

- **Deep Breathing Exercises:**
 - Involves taking slow, controlled breaths to activate the **parasympathetic nervous system (PNS)**.
 - Promotes relaxation and counteracts the “**fight-or-flight**” **response**.
 - Benefits: reduces heart rate, lowers blood pressure, decreases muscle tension.
 - Effective for managing **acute anxiety** and **panic attacks**.

Like Ronaldo before a penalty – deep breath, focus, chill... then score



- **Progressive Muscle Relaxation (PMR):**
 - Involves systematically tensing and relaxing different muscle groups in the body.
 - Reduces physical tension and promotes relaxation.
 - Helps break the cycle of muscle tension and pain associated with **anxiety** and psychosomatic conditions.
 - Useful in **tension-type headaches** and **TMJ**.
- **Mindfulness**
 - Encourages focus on the **present moment**, reducing rumination and worry.
 - Increases body awareness, helping individuals recognize physical tension and discomfort.
 - Can reduce intensity of psychosomatic symptoms such as **headaches, muscle tension, and gastrointestinal issues**.

Other Techniques

- **Guided imagery, visualization, and autogenic training** are additional relaxation techniques.
- These techniques help reduce **anxiety** and promote **overall well-being**.

Pharmacological Treatments

- Medications may be necessary for **moderate to severe anxiety** or when **psychosomatic symptoms** significantly impair daily functioning.
- Medications are categorized **by type**, not by disorder, for easier understanding.

1. Antidepressants

- ***a. Selective Serotonin Reuptake Inhibitors (SSRIs)***
- **Examples:** Fluoxetine (*Prozac*), Sertraline (*Zoloft*), Escitalopram (*Lexapro*).
- **Mechanism of Action:** Increase availability of **serotonin** in the brain, helping regulate mood, anxiety, and sleep.
- **Applications:**
 - Used for **GAD, panic disorder, social anxiety disorder**, and **OCD**.
 - Also effective for **depressive symptoms** that co-occur with anxiety.
- **Side Effects:**
 - Nausea, insomnia, sexual dysfunction, weight gain.
 - Often improve over time.

1. Antidepressants

- ***b. Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)***
- **Examples:** Venlafaxine (*Effexor*), Duloxetine (*Cymbalta*).
- **Mechanism of Action:** Increase levels of **serotonin** and **norepinephrine**; helpful for anxiety and **chronic pain**.
- **Applications:**
 - Treat **chronic pain syndromes** (e.g., fibromyalgia).
 - Used for **psychosomatic conditions** like **IBS** and **migraines**.
- **Side Effects:** Similar to SSRIs, but may increase **blood pressure** in some individuals.

2. Anxiolytics

- ***a. Benzodiazepines***
- **Examples:** Alprazolam (*Xanax*), Lorazepam (*Ativan*), Diazepam (*Valium*).
- **Mechanism of Action:** Enhance **GABA** activity, leading to rapid relief of anxiety.
- **Applications:**
 - Used for **short-term management** of **acute anxiety** or **panic attacks**.
- **Risks:**
 - Long-term use can lead to **tolerance**, **dependence**, and **withdrawal symptoms**.
 - Not recommended for **chronic anxiety**.

2. Anxiolytics

- *b. Buspirone*
- **Mechanism of Action:** Modulates **serotonin** and **dopamine receptors**, provides **anxiolytic effects** without sedation.
- **Applications:**
 - Used for **GAD**, considered safer for **long-term use** than benzodiazepines.
- **Side Effects:** Dizziness, headache, nausea; **less likely to cause dependency**.

Lifestyle Modifications

- Lifestyle changes play a crucial role in managing **anxiety** and **psychosomatic symptoms**.
- Help **reduce stress**, improve **overall health**, and enhance **resilience** to stressors.

Lifestyle Modifications

- **1. Exercise**

- Benefits:

- Regular physical activity reduces anxiety and depression.
 - Increases **endorphins** (natural mood enhancers).
 - Improves **sleep quality**.

- **2. Types of Exercise**

- **Aerobic exercises** (e.g., running, swimming, cycling) are particularly effective.
 - **Frequency:** At least **150 minutes** of moderate-intensity exercise per week recommended by the **American Heart Association**.

Lifestyle Modifications

- **3. *Nutrition***

- **Balanced Diet:**

- Rich in **fruits, vegetables, whole grains, lean proteins**, and healthy fats.
- Supports **brain health** and stabilizes **mood**.

Lifestyle Modifications

- **4. Key Nutrients**

- **Omega-3 Fatty Acids:** Found in **fish**, **flaxseeds**, and **walnuts**; have **anti-inflammatory** properties that may reduce anxiety.
- **Magnesium:** Found in foods like **spinach**, **almonds**, and **avocados**; helps relax muscles and reduce stress.
- **Complex Carbohydrates:** **Whole grains** and **legumes** help regulate **blood sugar**, preventing mood swings and energy crashes.
- **Avoid Stimulants:** Limit **caffeine** and **alcohol** to reduce anxiety symptoms and avoid **panic attacks** or **sleep disturbances**.

Lifestyle Modifications

- *5. Sleep Hygiene*

- **Importance:**

- Poor sleep worsens anxiety and psychosomatic symptoms.
- Good sleep improves **mood, cognitive function, and stress resilience.**

- **Tips for Better Sleep:**

- Maintain a **consistent sleep schedule.**
- Create a **relaxing bedtime routine** (e.g., reading, warm bath).
- Avoid **screens** an hour before bed to prevent **melatonin disruption.**
- Keep bedroom **cool, dark, and quiet** to promote sleep.

Lifestyle Modifications

- **6. *Stress Management***
- **Time Management:**
 - Prioritize tasks, set realistic goals, break projects into steps.
- **Social Support:**
 - Build strong **social connections**, seek support from family/friends.
- **Hobbies and Leisure Activities:**
 - Engage in enjoyable activities (e.g., **art, music, gardening**) to relieve stress and promote relaxation.

Lifestyle Modifications

- *7. Religious and Spiritual Practices*
- Address **existential questions** like “Why am I here?”, “What should I do?”, “Why me?”.
- Help reduce anxiety from **uncertainty about the future** and increase tolerance to life stress.
- Practices like **praying** are important for enhancing **psychological stability**.

Interdisciplinary Collaboration: The Importance of Teamwork

- Managing **anxiety-induced** and **psychosomatic symptoms** often requires input from multiple healthcare professionals.
- **Effective interdisciplinary collaboration** ensures that all aspects of the patient's condition are addressed comprehensively.

Interdisciplinary Collaboration: The Importance of Teamwork

- *1. Primary Care Physicians (PCPs)*
 - Play a central role in **coordinating care** and ruling out **organic causes** of symptoms.
 - Can initiate **pharmacological treatments**, refer to specialists, and monitor progress
- *2. Psychologists and Psychiatrists*
 - **Psychologists:**
 - Provide **non-pharmacological interventions** such as **CBT**, **mindfulness training**, and **relaxation techniques**.
 - **Psychiatrists:**
 - Assess the need for **medication** and manage **pharmacological treatments**, especially for **anxiety**, **depression**, or **chronic pain**.

Interdisciplinary Collaboration: The Importance of Teamwork

- *3. Specialists*

- **Gastroenterologists:**

- For conditions like **IBS**, collaborate with mental health professionals to address both **physical** and **psychological** aspects.

- **Dentists:**

- In cases of **TMJ**, manage **bruxism** and jaw pain with **dental interventions** (e.g., **nightguards**) and **stress-reduction techniques**.

- **Neurologists:**

- For **chronic fatigue syndrome** or **tension-type headaches**, help rule out **neurological causes** and manage pain.

Interdisciplinary Collaboration: The Importance of Teamwork

- *4. Physical Therapists, Occupational Therapists, and Speech Pathologists*
 - Help patients with **chronic pain** or **fatigue** by teaching:
 - **Pacing strategies**
 - **Gentle exercise routines**
 - **Ergonomic modifications** to reduce strain.
- *5. Nutritionists and Dietitians*
 - Help manage conditions like **IBS** by:
 - Identifying **dietary triggers**
 - Promoting **gut-friendly diets** (e.g., **low-FODMAP**)

Interdisciplinary Collaboration: The Importance of Teamwork

• 6. Social Workers

- Provide support for patients dealing with:
 - **Socioeconomic stressors, trauma, or lack of social support.**
- Connect patients to **community resources** or **support groups**.

Evaluate Yourself

Self-Assessment Anxiety Scale

Rate each item 0-3: 0=Never, 1=Sometimes, 2=Often, 3=Always

- **Excessive Worry:** I feel uncontrollable anxiety about work/studies.
- **Physical Symptoms:** I experience racing heart, sweating, or trembling.
- **Sleep Issues:** I struggle to fall/stay asleep due to stress.
- **Irritability:** I snap at colleagues/patients over minor issues.
- **Avoidance:** I delay tasks due to fear of failure.
- **Concentration Problems:** My mind goes blank during critical tasks.
- **Fatigue:** I feel exhausted even after rest.

Scoring & Interpretation:

- **0-7:** Mild anxiety (Self-care recommended)
- **8-14:** Moderate anxiety (Consider professional support)
- **15-21:** Severe anxiety (Seek clinical evaluation)

Adapted from (GAD-7) for quick screening

Key learning point

Start with non-pharmacological interventions when possible. Sometimes, a combination of pharmacological and non-pharmacological approaches yields good outcomes for patients with anxiety and psychosomatic illnesses.

Practical Applications: Managing Anxiety-Induced Symptoms

- Addressing **anxiety** and **psychosomatic symptoms** requires applying **theoretical knowledge** to **real-world scenarios**.
- Case examples show how **interventions** can be **tailored** to individual patients.
- Highlights the importance of **interdisciplinary collaboration** in managing complex conditions.

Case 1: Irritable Bowel Syndrome (IBS) with Anxiety

- **Patient Profile:**
- Sarah, 32-year-old woman
- Presents with **chronic abdominal pain, bloating, and alternating diarrhea and constipation**
- Symptoms worsen during **periods of stress** (e.g., work deadlines, family conflicts)
- **Extensive medical testing** ruled out organic causes like **inflammatory bowel disease (IBD)**

Case 1: Irritable Bowel Syndrome (IBS) with Anxiety

- ***Assessment:***
- Sarah's symptoms align with **irritable bowel syndrome (IBS)**, influenced by **psychological stress**.
- She also meets criteria for **generalized anxiety disorder (GAD)** due to **excessive worry** about health and responsibilities.

Case 1: Irritable Bowel Syndrome (IBS) with Anxiety

- *Interventions:*

1. **Non-Pharmacological Interventions:**

- Referred to a psychologist for **CBT**
- CBT helps address **anxiety** and **maladaptive thought patterns**, and develop **copng strategies**

2. **Lifestyle Modifications:**

- Advised to adopt a **low-FODMAP diet**
- Avoid symptom-triggering foods
- Recommended **regular aerobic exercise** (e.g., brisk walking) to reduce stress and improve **gut motility**

3. **Pharmacological Treatments:**

- Prescribed **low-dose SSRI** (e.g., sertraline)
- To manage anxiety and improve **mood regulation**
- SSRIs shown to reduce **IBS symptoms** in some patients

Case 1: Irritable Bowel Syndrome (IBS) with Anxiety

- **Outcome:**
- Over several months, Sarah reports **significant reduction in anxiety** and **IBS symptoms**
- Improved ability to **cope with stress**
- Fewer **gastrointestinal flare-ups**

Case 2: Temporomandibular Joint Disorder (TMJ) with Anxiety

- **Patient Profile:**

Jamal, 45-year-old man, reports **jaw pain, clicking sounds, and frequent headaches**. Admits to **teeth grinding** and feeling “tense.” Diagnosed with **TMJ**, no structural abnormalities.

- **Assessment:**

Symptoms linked to **stress-related bruxism** and **muscle tension**. Shows **chronic anxiety** and persistent worry about **financial issues**.

Case 2: Temporomandibular Joint Disorder (TMJ) with Anxiety

- *Interventions:*

- 1. **Non-Pharmacological:**

- **CBT** to address anxiety and replace **maladaptive behaviors** (e.g., jaw clenching).
- **PMR** and **guided imagery** for muscle tension.
- **Nightguard** to protect from bruxism.

- 2. **Lifestyle Modifications:**

- **Stress management** (mindfulness, breathing).
- **Regular aerobic exercise** to reduce stress.

- 3. **Pharmacological:**

- **Short course benzodiazepine** (e.g., lorazepam) tapered off.
- **SNRI** (e.g., duloxetine) to manage **chronic pain** and improve **mood regulation**.

Case 2: Temporomandibular Joint Disorder (TMJ) with Anxiety

- **Outcome:**
- After six months, **jaw pain and headaches reduced, anxiety levels decreased**, and Jamal feels **more in control** of stress.

Case 3: Chronic Fatigue Syndrome (CFS) with Depression

- ***Patient Profile:***

Eman, 28-year-old woman, presents with **persistent fatigue**, **cognitive difficulties** (“brain fog”), and **sleep disturbances**.

Unable to work for months due to exhaustion.

Diagnosed with **CFS** after ruling out organic causes.

Also exhibits **depressive symptoms**: low mood, lack of motivation, hopelessness.

- ***Assessment:***

CFS likely **exacerbated** by **psychological factors** like **depression** and **chronic stress**.

History of **trauma** and **unresolved emotional issues** may contribute.

Case 3: Chronic Fatigue Syndrome (CFS) with Depression

- *Interventions:*

1. **Non-Pharmacological:**

- **CBT** focusing on **pacing activities** and **challenging negative thoughts**.

2. **Lifestyle Modifications:**

- Establish **consistent sleep routine**, practice **sleep hygiene**.
- Introduce **gentle exercise** (e.g., walking, stretching) gradually to avoid **post-exertional malaise**.

3. **Pharmacological:**

- **SSRI** (e.g., escitalopram) for depression and mood regulation.
- **Low-dose modafinil** considered for **daytime fatigue** (long-term efficacy debated).

Case 3: Chronic Fatigue Syndrome (CFS) with Depression

- ***Outcome:***
- Eman experiences **modest improvement in energy and cognitive function**, **depressive symptoms diminish**, and she regains **a sense of purpose and control**.

Key learning point

Psychosomatic illnesses are genuine conditions that require validation and empathy from healthcare providers. A holistic approach is often essential. Effective management does not always mean achieving a perfect cure but rather addressing the psychological root causes and improving overall well-being.

Psychology on the ground

In Japan, the concept of "Karoshi" (death by overwork) underscores the impact of chronic stress on physical health. Public health campaigns have been launched to address workplace stress and promote mental well-being.



6. Practical Tips!

☒ Do	☒ Avoid
• Validate patients' experiences and emotions. • Use open-ended questions to explore stressors. • Refer patients to mental health specialists when needed.	• Dismiss symptoms as purely psychological without investigation. • Rush through consultations without addressing emotional concerns. • Prescribe anxiolytics as the sole treatment without exploring other options.

Quick review

Quick Review and Brief Answers to Unit Questions

1. How does chronic anxiety affect the body's physiological systems?

Answer:

Chronic anxiety activates the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system, leading to prolonged release of stress hormones like cortisol and increased autonomic arousal. This can disrupt multiple physiological systems:

- Cardiovascular System:** Elevated heart rate and blood pressure increase the risk of hypertension and heart disease.
- Immune System:** Chronic cortisol exposure suppresses immune function, making individuals more susceptible to infections and inflammatory conditions.
- Gastrointestinal System:** Anxiety exacerbates conditions like irritable bowel syndrome (IBS) by altering gut motility and sensitivity.
- Musculoskeletal System:** Persistent muscle tension can lead to pain conditions such as tension-type headaches or temporomandibular joint disorder (TMJ).
- Sleep and Energy Regulation:** Anxiety disrupts sleep patterns, contributing to fatigue and impaired cognitive function.

2. What role do environmental and genetic factors play in the development of psychosomatic illnesses?

Answer:

Psychosomatic illnesses result from the interaction of biological vulnerabilities and psychosocial stressors:

- Genetic Factors:** Some individuals have a genetic predisposition to heightened stress reactivity, anxiety, or conditions like migraines or IBS.
- Environmental Factors:** Stressful life events (e.g., trauma, job strain), lack of social support, and cultural attitudes toward illness can trigger or worsen symptoms. For example, chronic work-related stress may exacerbate chronic fatigue syndrome (CFS) or TMJ.

3. Can untreated anxiety lead to long-term physical health complications?

Answer:

Yes, untreated anxiety can contribute to serious long-term health issues:

- Cardiovascular Disease:** Chronic stress increases the risk of hypertension, heart attacks, and strokes.
- Metabolic Disorders:** Elevated cortisol levels can lead to weight gain, insulin resistance, and type 2 diabetes.
- Chronic Pain:** Anxiety amplifies pain perception, worsening conditions like fibromyalgia or tension headaches.
- Gastrointestinal Disorders:** Anxiety can exacerbate or prolong symptoms of IBS and other functional gastrointestinal disorders.
- Mental Health Decline:** Untreated anxiety often coexists with depression, further impairing quality of life.

4. How can healthcare providers differentiate between anxiety-induced symptoms and organic diseases?

Answer:

Differentiation requires a comprehensive approach:

- Patient History:** A detailed history helps identify psychological stressors, symptom triggers, and patterns (e.g., worsening during stress).
- Physical Examination and Testing:** Ruling out organic causes through lab tests, imaging, or specialist consultations is essential.
- Psychological Assessment:** Screening for anxiety, depression, or trauma using validated tools (e.g., GAD-7, PHQ-9) can highlight psychological contributors.
- Response to Treatment:** Symptoms that improve with psychological interventions (e.g., CBT) or stress management are more likely anxiety-induced.

5. What ethical considerations arise when treating patients with anxiety and psychosomatic disorders?

Answer:

Ethical considerations include:

- Validation of Symptoms:** Avoid dismissing symptoms as "all in the patient's head," which can lead to mistrust and disengagement.
- Informed Consent:** Ensure patients understand the role of psychological factors in their condition and the rationale for recommended treatments.
- Avoiding Stigmatization:** Be sensitive to societal stigma around mental health and avoid language that could alienate or shame the patient.
- Balancing Treatments:** Use pharmacological treatments judiciously, especially for medications with dependency risks (e.g., benzodiazepines).
- Interdisciplinary Collaboration:** Respect the roles of all healthcare providers involved in the patient's care to ensure coordinated, patient-centered treatment.

سُبْحَانَكَ اللَّهُمَّ وَبِحَمْدِكَ، أَشْهَدُ أَنْ لَا إِلَهَ إِلَّا أَنْتَ، أَسْتَغْفِرُكَ وَأَتُوبُ إِلَيْكَ



اللهم يا قوي يا جبار، يا ناصر المستضعفين، انصر أهلنا في غزة نصرًا مؤزرًا، وكن لهم عونًا وسندًا، واحفظهم بحفظك، وكن لهم وليًا وحافظًا.
اللهم اشف جرحاهم، وارحم شهداءهم، وأمن روعاتهم، وفك حصارهم، وبدد عنهم كل خوف وجوع وبلاء.
اللهم اربط على قلوبهم بالصبر والثبات، وأنزل عليهم سكينتك ورحمتك، واجعل كيد عدوهم في نحره، وزلزل الأرض تحت أقدامهم، ورد بأسهم عليهم.
اللهم اجعل لهم من كل هم فرجًا، ومن كل ضيق مخرجًا، ومن كل بلاء عافية، وانصرهم نصرًا عزيزًا قريبًا، وفرح به المؤمنون.

🙏 آمين يا رب العالمين

💜 دعواتكم لمن قام بهذا العمل