

SECTION

6

THERAPEUTIC DEVICES



BIOMEDICAL INTERVENTION

Therapeutic Devices

INTRODUCTION

In this section, you will be introduced to the world of therapy and the devices used to support a person's well-being. You will explore the different types of therapists, such as physical, occupational, and mental health counsellors, and how each one uses unique approaches to help people with a variety of challenges. You will also dive into the diverse therapeutic fields and the specific problems they aim to address, as well as the various devices, from ultrasound machines to weighted blankets, which play a crucial role in the therapy process. Explore to have a broader understanding of how therapy and therapeutic devices can support an individual's physical, mental, and emotional health.

At the end of this section, you will be able to:

- Identify the various forms of therapy.
- Investigate who a therapist is and enumerate the various specialities.
- Identify the various therapeutic devices used by the therapist.

Key Ideas

- Therapy treats medical, physical, or mental conditions to relieve symptoms, promote healing, and restore function.
- Therapists are trained healthcare professionals who provide specialised treatment to help alleviate symptoms and aid healing.
- Common therapist specialities are physical therapists, occupational therapists, speech therapists, and mental health therapists like psychotherapists.
- Physical therapy uses exercises and techniques to restore movement and function, while occupational therapy helps develop daily living skills.
- Speech therapy addresses communication, swallowing, and language issues, and psychotherapy uses talk-based methods to improve mental health.
- Mobility aids like walkers and wheelchairs help independence, and orthotic/prosthetic devices provide support and replacement.
- Phototherapy uses light exposure to reduce inflammation and promote healing across different therapy types.

EXPLORING THE VARIOUS FORMS OF THERAPY

After a successful diagnosis, there is a need for proper therapy. In this lesson, you will explore the field of therapy and the characteristics of therapy as well as the various forms of therapy.

Definition Of Therapy

Therapy can be defined as: *a professional intervention or treatment process aimed at improving, relieving or healing an individual's mental, emotional, or physical well-being.* Therapy can be beneficial for individuals facing various physical, emotional and mental health issues or life challenges. Treatment is any approach or intervention aimed at addressing a health condition, but therapy is a specific type of treatment focusing on addressing mental, emotional, or psychological concerns through structured interventions.

Characteristics of Therapy

The features of therapy can differ depending on the specific type and the particular approach employed. However, they all share some common characteristics that are typically present in therapeutic interventions.

Below are some key characteristics

1. **Confidentiality and trust:** Therapy establishes a safe, confidential environment where clients feel comfortable sharing openly without judgment.
2. **Boundaries and ethics:** Maintaining appropriate professional boundaries and adhering to ethical guidelines is crucial.
3. **Active listening:** Therapists engage in active listening, carefully attending to clients and providing thoughtful responses.
4. **Assessment:** Initial assessments gather information about the client's background, issues, and goals to inform the treatment plan.
5. **Communication and expression:** Open, honest communication allows clients to explore their emotions, thoughts, and behaviours in a supportive setting.
6. **Follow-up and progress monitoring:** Regular check-ins assess progress and allow for adjustments to the treatment plan as needed.

Types of Therapies and How They Are Carried Out

The forms of therapies range from physical, mental and emotional health issues. Let us examine some common types of therapies and how they are carried out.

1. **Psychotherapy/Psychodynamic Therapy:**
Psychodynamic therapy is based on the idea that a person's emotional problems stem from unresolved, often unconscious conflicts and experiences, typically from childhood. The therapy explores the unconscious mind to understand

how early life events can influence a person's current thoughts, feelings, and behaviours. By gaining insight into the roots of their issues, clients can develop healthier ways of coping.



Fig. 6.1:Psychotherapy/Psychodynamic Therapy

2. Cognitive-Behavioural Therapy (CBT)

CBT is a type of talk therapy that helps people recognize and change negative thought patterns and behaviours. Through CBT, individuals learn to identify and replace unhelpful or negative thoughts with more constructive ways of thinking in order to develop effective coping strategies and make positive changes.

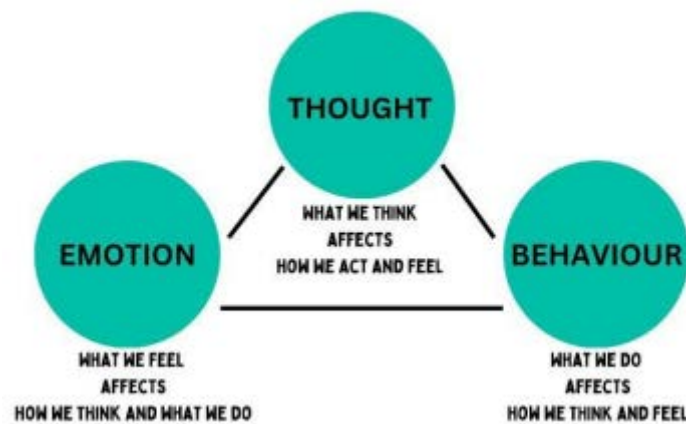


Fig. 6.2: Cognitive Behavioural Therapy (CBT)

3. Group Therapy

Group therapy involves a small group of individuals who share similar concerns or challenges. A therapist leads the group, fostering a supportive environment where members can share experiences, offer feedback, and gain insights from each other.



Fig.6.3: Group Therapy

4. Art and music therapy

This therapy uses creative activities like painting, drawing, and music-making to help clients express their emotions and inner experiences. These creative modalities provide a non-verbal outlet for self-expression and can promote self-awareness and emotional well-being.



Fig. 6.4: Music and Art Therapy

5. Occupational Therapy

Occupational therapy helps individuals develop the skills and strategies needed to perform daily activities and live more independently. The goal is to enhance the client's ability to manage tasks and improve their overall quality of life.



Fig. 6.5: Occupational Therapy

6. Physical Therapy

Physical therapy helps people regain mobility, strength, and physical function after injuries or disabilities. Here, therapists use exercises, physiotherapy



Fig. 6.6: Physical Therapy

7. Speech Therapy

Speech therapy focuses on addressing speech, language, and communication difficulties, as well as swallowing problems. Through specialized exercises and techniques, speech therapists work to improve clients' communication skills.



Fig. 6.7: Speech Therapy

It is now time to explore some activities to increase your understanding of forms of therapy



Did you know.....*that the colour of th'e room can affect your mood and mental state during a therapy session, with calming colours like blues and greens promoting relaxation?*

Activity 6.1: PowerPoint Presentation

1. Listen to a PowerPoint presentation from a specialist, teacher or online on various forms of therapy
2. As you listen, make a flow chart on some life issues and the type of therapy needed to resolve each issue.
3. Share with your friends, colleagues or relatives the relevance of therapy

Activity 6.2: Short note and online search

1. Write short notes on the various forms of therapy based on the presentation
2. Consult a book or search online for the various forms of therapy discussed so far.

Activity 6.3: Set up 4 stations, Part 1.

1. Spend 2-5 minutes at each station.
2. Follow the steps below and perform each assigned task. You can follow in any order!
3. Stations:
 - a. Psychotherapy/Psychodynamic Therapy
 - Reflective journaling prompt - Describe a past experience that has influenced how you think or behave today.
 - Reflect on how exploring past experiences can provide self-awareness.
 - b. Cognitive-Behavioural Therapy (CBT)
 - Thought Record worksheet - List negative thoughts, then reframe them in a more balanced way.
 - Consider how identifying and changing unhelpful thought patterns can be beneficial.
 - c. Art Therapy
 - Create an abstract expression of your current mood or emotions.
 - Reflect on how the creative process can be therapeutic.
 - d. Music Therapy
 - Listen to different music clips - Reflect on how the music makes you feel.
 - Discuss how music can be used in therapy to process emotions.

Great work! Make note of the types of therapy you just explored. Share your experience with someone.

Activity 6.4: Set up 3 stations, Part 2.

1. Spend 2-5 minutes at each station.
2. Follow the steps below and perform each assigned task. You can follow in any order!

3. Stations:

a. Occupational Therapy (OT)

- Everyday task challenge (e.g. putting on a shirt with limited mobility)
- Brainstorm adaptive strategies or tools to make the task easier.
- Discuss how OT helps improve independence in daily living.

b. Physical Therapy

- Gentle exercise routine - Follow along with the provided instructions.
- Reflect on how PT helps improve strength, mobility, and function.

c. Speech Therapy

- Communication exercises (e.g. tongue twisters, eye contact practice)
- Discuss how speech therapy addresses speech, language, and swallowing difficulties.

Bingo! Now educate someone on the various therapies and how they can promote the healing process of clients.

Activity 6.5 Types of Therapy

1. Click [here](#) to watch a video on Cognitive Behavioural Therapy
2. Click [here](#) to watch a video on some form of therapy
3. Make a short note as you watch the video and share your view with someone.

Self-reflection

Reflect on how the different therapeutic approaches can be beneficial for individuals. Feel free to ask for assistance if needed.

INVESTIGATION OF WHO A THERAPIST IS AND ENUMERATION OF THE VARIOUS SPECIALTIES

In this lesson, you will be introduced to who a therapist is. You will then examine various specialists, the people they see and the techniques they employ to administer the various forms of therapies.

Who is a Therapist?

A therapist can be defined as:

- i. a trained and licensed professional who provides therapeutic services to individuals, or groups to address various mental, emotional, behavioural, and physical challenges.
- ii. counsellors, psychotherapists, or mental health professionals who help clients improve their mental and emotional well-being, cope with difficulties, and work through personal issues.

The various professions in therapy and the role played

The field of therapy encompasses various professionals working to resolve different health issues regarding mental, emotional, and physical well-being. Some common types of therapists and their areas of specialisation are given below:

- 1. Psychologist:** Psychologists are health professionals who are trained to assess mental health, diagnose disorders, and provide different types of therapy. They also research to study how people think, behave, and interact with their environment.

Some techniques used by psychologists include:

- a. psychological testing: evaluates a person's mental abilities and personality.
- b. Behavioural testing: observes and measures a person's actions and reactions.
- c. Relaxation techniques: help reduce stress and promote calmness.
- d. Mindfulness techniques: improve mental focus and emotional regulation.

Psychologists usually work with individuals having mental health disorders such as:

- a. anxiety disorders
- b. depression
- c. bipolar disorder
- d. eating disorders
- e. trauma
- f. personality disorders

Psychologists also see people facing life challenges such as:

- a. relationship issues
- b. family issues
- c. stress management
- d. grief and loss
- e. self-esteem issues

- 2. Licensed Professional Counsellor (LPC):** LPCs are experts who specialize in helping people deal with mental, emotional, and behavioural problems. They use psychotherapy and other counselling techniques to help clients improve their mental health and well-being. They often work one-on-one with individuals, couples, or families to address various mental health concerns.

Below are some examples of LPCs:

- a. **Marriage and family therapist (MFT):** specialize in helping couples and families improve their relationships and communication. They work with couples experiencing conflicts such as struggling with communication, infidelity and families dealing with behavioural issues, parenting challenges, or grief.
 - b. **Clinical social worker:** Clinical social workers provide therapy and counselling to individuals, families, and groups. They work in settings like hospitals and schools, helping people with mental health, addiction, and social issues, and connecting them to community resources.
 - c. **Art and Music Therapist:** Art and music therapists help clients express their emotions and thoughts through creative activities like art and music.
 - d. **Substance Abuse Counsellor:** substance abuse counsellors specialise in assisting people who are struggling with drug or alcohol addiction. They provide support, education, and therapy to aid in recovery and prevent relapse.
 - e. **Trauma Therapist:** They specialize in working with people who have been through deeply distressing or life-altering events. They use evidence-based techniques to help clients process and heal from trauma-related symptoms.
3. **Psychiatrist:** Psychiatrists are medical doctors who specialize in diagnosing, treating, and preventing mental health issues, often through medication and therapy.

Psychiatrists can treat a wide range of mental health conditions, including:

- a. **anxiety disorders:** Involve excessive and persistent worry or fear
- b. **depression:** mental health condition that makes people feel extremely sad and not having interest in things around them
- c. **bipolar disorder:** causes extreme mood swings between feeling highly energetic and feeling extremely depressed.
- d. **Schizophrenia:** a serious mental illness that can lead to hallucinations, delusional thoughts, and disorganized behaviour.
- e. **eating disorders:** Involve an unhealthy focus on food, weight, and body shape.
- f. **obsessive-compulsive disorder (OCD):** Having unwanted, repeated thoughts and feel driven to repeat certain behaviours or rituals.
- g. **post-traumatic stress disorder (PTSD):** develops after someone experiences a deeply distressing or life-threatening event.
- h. **attention deficit hyperactivity disorder (ADHD):** involves difficulty focusing, hyperactive behaviour, and impulsiveness.
- i. **substance use disorders** (sometimes in collaboration with addiction specialists)

Psychiatrists utilise a variety of techniques to diagnose and treat mental health conditions. Some common techniques used by psychiatrists include:

- a. medication
 - b. psychotherapy
 - c. psychological testing
 - d. light therapy: uses bright, artificial light to help treat certain medical and mental health problems.
- 4. Occupational therapist:** Occupational therapists help people regain or improve the skills needed for everyday activities after an illness, injury, or disability, with the goal of increasing their independence and well-being.

They employ a wide range of techniques which includes the following:

- a. activity analysis
 - b. activity practice
 - c. adaptive equipment training
 - d. splinting and orthotics
 - e. sensory integration
 - f. environmental modifications
 - g. mental health support
 - h. compensatory strategies.
- 5. Physical therapist:** Physical therapists are healthcare professionals who help people regain mobility, function, and well-being after injuries, illnesses, or disabilities that limit their movement and daily activities.

Here is a breakdown of some of the most common treatments:

- a. **Manual Therapy Techniques such as:**
 - i. joint mobilisations and manipulations
 - ii. soft tissue mobilisation
 - iii. strengthening exercises
 - iv. range-of-motion exercises
 - v. balance and coordination exercises
 - b. **Modalities such as:**
 - i. heat therapy
 - ii. cold therapy
 - iii. electrical stimulation
 - iv. ultrasound
 - v. assistive devices
- 6. Speech therapist:** Speech therapists are healthcare professionals who work with people of all ages to evaluate, diagnose and treat issues with speech, language, swallowing, and voice, helping to improve their communication and quality of life.

These may include:

- a. Exercises to improve muscle strength and coordination in the mouth and throat.

- b. Strategies for improving speech clarity and fluency.
- c. Techniques for using alternative communication methods, such as sign language or picture boards.
- d. Training in using augmentative and alternative communication (AAC) devices.

NOTE: Refer to Fig. 6.18 under the Extended Reading for some differences between psychologists and psychiatrists.

Explore the following activities for more understanding of the concepts examined so far

Activity 6.6: Listening to a Presentation by a therapist

1. Embark on a visit to a therapist or listen to a presentation by a therapist online about their profession and job.
2. Document the uniqueness of each gender as a therapist.

Activity 6.7: Role-play the duties of a professional therapist (1)

1. Choose a friend or a colleague to assist you in this
2. Role-play the duties of the various professionals involved in providing therapy.

Example: Act as a Physical Therapist while your friend or colleague acts as a patient.

Your tasks include the following:

- Interview and evaluate the "patient" to assess mobility, strength, and range of motion
- Ask about medical history, current symptoms, and any limitations they are experiencing.
- Then use various tests to measure things like their range of motion, strength, and balance. This will help you identify the areas you need to focus on in treatment.
- Next, create an exercise plan tailored to your "patient's" needs and goals. This might include strength training, flexibility work, gait training, and other techniques to improve their physical function.
- Guide your "patient" through these exercises step-by-step, providing feedback and encouragement along the way.
- Teach them exercises they can do at home, as well as tips for preventing further injury or worsening of their condition.
- Empower them to take an active role in their recovery.

Activity 6.8: Role-play the duties of a professional therapist (2)

1. Choose a friend or a colleague to assist you in this
2. Role-play the duties of the various professionals involved in providing therapy.

Example 2: Act as Occupational Therapist (OT)

Your tasks include the following

- Ask about the challenges your “patient” is facing and what is most important for them to be able to do on their own.
- Create a customized treatment plan. This might involve training the patient on using adaptive equipment and technologies to make tasks easier.
- Recommend modifications to their home or workplace to improve accessibility.
- Empower them to take an active role in their own care and recovery.

Try with other forms of therapists

Activity 6.9: Making a presentation

1. Research on various roles and responsibilities of various therapists.
2. Choose one therapist and prepare a brief presentation on the chosen therapist.
3. Highlighting key aspects of the therapist’s role and the types of clients they may encounter

Self-reflection

How easy were you able to complete the activities?

How do you see the contributions of therapists to healthcare?

IDENTIFICATION OF THE VARIOUS THERAPEUTIC DEVICES USED BY THE THERAPIST.

In this lesson, you will learn about the devices and tools used by therapists and their functions. You will become familiar with common therapy equipment and understand how therapists use these tools to assess, treat, and support their patients. This will give you greater insight into the essential resources therapists rely on to help their patients regain health, mobility, and independence.

List of Various Therapeutic Devices and Tools as Well as Their Functions

Therapeutic devices are medical tools and equipment used to aid in the treatment and management of various health conditions.

Below is a list of some common therapeutic devices and their functions:

1. **Transcutaneous Electrical Nerve Stimulation (TENS) Unit:** A TENS unit is a device that uses low-level electrical currents applied to the skin to help relieve pain by triggering the body's release of natural painkillers.

Function: provides electrical stimulation to nerves through the skin to alleviate pain, particularly for chronic or acute pain conditions, menstrual cramps or headaches.



Fig. 6.8: Transcutaneous Electrical Nerve Stimulation (TENS) Unit

2. **Continuous Positive Airway Pressure (CPAP) Machine:** CPAP machine delivers a constant stream of compressed air through a hose and mask that is worn while sleeping. The pressurised air keeps the airway open, preventing the blockages and allows normal breathing throughout the night.

Function: A CPAP machine delivers continuous air pressure to keep the airways open during sleep, helping to treat obstructive sleep apnoea (OSA) and improve sleep quality, reduce daytime sleepiness, and lower related health risks. CPAP also improves quality of sleep, reduces daytime sleepiness and health risks such as stroke and high blood pressure.

N/B: OSA is a condition where breathing repeatedly stops and starts during sleep because of blocked airways



Fig. 6.9: Continuous Positive Airway Pressure (CPAP) Machine

3. **Nebulizer:** A nebulizer changes liquid medication into a fine mist that can be inhaled directly into the lungs through a mouthpiece or mask, allowing the medication to be quickly and effectively absorbed. This method allows medication to be absorbed quickly and efficiently.

Function: It is beneficial for treatment and management of respiratory conditions like asthma, chronic obstructive pulmonary disease (COPD), cystic fibrosis and other diseases and disorders that affect breathing.



Fig. 6.10: Nebulizer

4. **Cold Pack (Ice Pack):** Cold packs, also known as gel packs or ice packs, are a common tool used in physical therapy for various therapeutic purposes. Cold packs use low temperatures to reduce swelling, inflammation, and pain by constricting blood vessels and numbing nerves in the targeted area.

Functions: Cold therapy is a helpful tool used in physical therapy for various reasons such as:

- a. reducing swelling and inflammation
- b. injuries and post-surgical pain management
- c. muscle spasm management
- d. headache relief especially tension headaches.



Fig. 6.11: Cold Pack (Ice Pack)

- 5. Heating Pad:** Heating pads are electric devices used in physical therapy to apply warmth to specific areas of the body. When it is applied to the skin, it provides heat that is absorbed by the underlying tissues.

The warmth triggers several physiological responses such as:

- It increases blood flow by widening the blood vessels. This brings more oxygen and nutrients to the area, helping it heal.
- It blocks pain signals and increases natural painkillers, reducing pain and discomfort.
- It relaxes tight muscles, making movement easier and less painful.
- The warmth loosens up stiff joints and soft tissues, improving range of motion.

Functions: Physical therapists often recommend heating pad therapy for various reasons such as:

- They can help reduce pain from muscle problems and long-term conditions
- They loosen up tight muscles and improve joint flexibility, making daily activities easier.
- They increase blood and nutrient flow to injured or surgery areas, which helps them heal faster.



Fig. 6.12: Heating Pad

6. Medical compression tools: are tools used in physical therapy to apply controlled pressure to certain areas of the body. This pressure helps promote healing and improve function. One common type of medical compression tool is compression garments. These are stretchy clothing items like stockings or arm sleeves that provide graduated (varying) levels of compression. This compression helps improve blood flow and reduces swelling or blood clots.

Function: Physical therapists use medical compression tools for a few key reasons:

- a. The compression helps improve blood flow, which is important for healing and repairing tissues by delivering more nutrients.
- b. Compression garments reduce swelling caused by fluid buildup, and thereby improving mobility and comfort.
- c. Compression helps relieve pain from muscle strains, sprains, lymphedema (swelling), and after surgery.
- d. Compression garments can improve body awareness and coordination, especially after injuries, by providing more feedback to the limbs.



Fig. 6.13: Compression Garments

7. Cervical traction devices: are medical tools used in physical therapy to apply a gentle pulling or stretching force to the neck and upper back area. This is done to help relieve pressure and discomfort.

Function: The pulling action created by these devices helps:

- a. It slightly separates the vertebrae (bones) in the neck, which can take pressure off pinched nerves and the spinal cord.
- b. The increased space between vertebrae improves blood flow to the area, helping with healing and reducing inflammation.
- c. It relaxes the tight muscles in the neck and upper back, which often contribute to pain and stiffness.



Fig. 6.14: Cervical Traction Devices

- 8. Prosthesis and Orthosis:** Prosthetics are artificial devices that replace a missing body part most commonly a limb like an arm or leg (See Fig.6.15a). Prosthetics can also replace other body parts like eyes, ears, or teeth. In physical therapy, prosthetics help patients regain function and mobility in the area where a body part is missing. Orthoses are external devices worn to support and improve the function of an existing body part (See Fig. 6.15b). Examples of orthoses are casts, splints, braces and corrective footwear.

Examine the functions of prosthetics and orthoses below:

Prosthetics:

- a. Restore mobility and independence for amputees
- b. Improve balance and coordination for safer movement

Orthoses:

- a. Immobilise injuries to promote healing. For example, casts and splints.
- b. Reduce pain and improve function by providing support, reducing inflammation and improving joint mechanics.
- c. improve mobility and function by providing stability, reducing pain, and enhancing balance. This helps people better participate in daily activities and exercise.
- d. Orthoses like ankle braces can prevent future injuries by providing support and correcting alignment issues for people with weak ankles.



Fig. 6.15(a): Examples of prostheses (Legs for Africa, 2021)



Fig. 6.15 (b): Examples of orthoses

- 9. Mobility Aids:** these are tools used to help people who have trouble walking or staying balanced. Physical therapists recommend these to improve mobility and function. Examples include canes, crutches, walkers, and wheelchairs.

Functions: Mobile aids provide the following supports to people:

- a. Provide increased stability, mobility, and reduced pain
- b. Empower patients to be more active in therapy and daily life.
- c. Foster a greater sense of independence.



Fig. 6.16: Mobility aids

- 10. Phototherapy devices:** Phototherapy devices are light therapy devices that use ultraviolet (UV) light on exposed skin to treat various conditions such as skin disorders and jaundice (hyperbilirubinemia). During phototherapy, the skin is exposed to ultraviolet (UV) light for a set amount of time. This form of treatment is safe for all ages and is a common treatment for newborn jaundice. In physical therapy, phototherapy is a non-invasive treatment modality used to manage a variety of conditions.

Function: Phototherapy devices offer a range of benefits in therapy.

- a. Phototherapy can reduce inflammation in the skin, which helps conditions like psoriasis and eczema.
- b. Some phototherapy treatments help calm an overactive immune system

- in the skin, which is beneficial for psoriasis.
- c. Phototherapy promotes skin healing and improves the appearance of conditions like psoriasis and vitiligo.
 - d. For babies with jaundice, phototherapy helps lower bilirubin levels and prevent harm.



Fig. 6.17: Phototherapy (Light Therapy) Devices

It is now time to further explore therapeutic devices with some activities! Feel free to ask for support when needed.

Activity 6.10 Watch video on devices and tools used by therapists

1. Click [here](#) to watch the video on therapeutic devices
2. Document your observations of various devices and tools being used

Activity 6.11: Field trip

1. Arrange with your supervisor or guardian or teacher to take you on a tour of a hospital.
2. Observe each therapeutic device or tool and ask questions about their use.
3. Document your observations and write a report on the various devices and tools.

Activity 6.12: Online Research

1. Research on existing therapeutic devices and tools used to address challenges like mobility (walking, grasping objects), injury, chronic pain, breathing issues and broken limbs
2. Make a small note of them and educate someone on their functions and uses

Activity 6.13: Propose a design for a new therapeutic device

1. Research and propose a design for a new therapeutic device which addresses any chosen challenge in activity 6.12.
2. Consider the following:
 - a. **Functionality:** How are people going to use the device?
 - b. **User-friendliness:** How easy will it be to use the device?
 - c. **Accessibility:** Can people of all abilities use your device?
 - d. **Materials:** What materials are easily available and will be comfortable for users?

Activity 6.14: Prediction of devices and tools used for some interventions

1. Refer to *Exploration of the various forms of therapy*.
2. Write down the therapy sessions such as physical therapy, occupational therapy, etc.
3. Examine the devices and tools that is being used to address each issue.
4. Search for pictures of various forms of therapy and identify any devices and tools used.

Self-reflection:

Were you able to predict the correct therapeutic devices used in each form of therapy? How will your understanding of therapeutic interventions help your society?

Review Questions

1. a. What is therapy?
b. Explain the various forms of therapy and their relevance.
2. Discuss four characteristics of therapy.
3. Deduce how any two of the forms of therapy can be performed. Who will you recommend each to?
4. Analyse four key reasons why an individual may seek out different types of therapy as a form of treatment?
5. **Case study:**

Nyankom is a 15-year-old high school student who has been struggling with anxiety and low self-esteem. Nyankom's anxiety often makes it difficult for her to complete everyday tasks like getting ready in the morning. After talking to her parents and school counsellor, Nyankom decides to explore different types of therapy to help her cope.

In their sessions, they talk about Nyankom's negative thought patterns and explore how her past experiences have influenced her current feelings. Nyankom finds this helpful in gaining a better understanding of herself. Emily's therapist recommends trying another therapy as a way to express her emotions. During her sessions, Nyankom creates paintings and drawings that reflect how she is feeling. She is surprised by how calming and insightful the creative process can be.

The final therapy works with her to develop routines and strategies to make her everyday tasks more manageable. This helps improve Emily's independence and confidence.

- a. Name the types of therapy that Nyankom explored to help her cope with anxiety and low self-esteem.
 - b. Explain what took place in each session of Nyankom's therapy.
 - c. How did each therapy session help Nyankom gain a better understanding of herself?
 - d. Predict the overall impact of exploring this combination of therapeutic approaches on Nyankom's mental health and well-being.
6. Outline the role played by 5 different professional therapists in Ghana
 7. Based on the knowledge acquired on who a therapist is and their roles, deduce the skills needed as a therapist.
 8. Examine the role of three therapeutic devices and tools used for intervention.
 9. Discuss the significance of therapeutic devices to the therapist.

Answers to Review Questions

1 to 3: Refer to the note on: *Exploring the various forms of therapy on pages 3,4,5 and 6*

4. The main reasons why someone may need therapy:

- **Mental Health Issues:** Conditions like depression, anxiety, PTSD, etc. that require therapy to manage symptoms
- **Emotional Difficulties:** Challenges like grief, relationship problems, low self-esteem that need emotional support
- **Behavioural Disorders:** Issues like addiction, anger problems, and personality disorders that require behavioural change
- **Developmental Challenges:** Help those with disabilities or learning disorders to develop life and social skills
- **Relationship Problems:** Therapy for couples or families to improve communication and resolve conflicts
- **Stress and Burnout:** Therapy to learn how to better manage high levels of stress or work-related burnout
- **Trauma and Abuse:** Therapy to process and heal from traumatic experiences or abuse
- **Personal Growth:** Therapy to support self-discovery, gain insight, and work towards positive change

5. Case study

a. The types of therapy Nyankom explored were:

- Psychotherapy
- Art Therapy
- Occupational Therapy

b. In each therapy session:

- **Psychotherapy:** Nyankom and her therapist discussed her negative thought patterns and past experiences.
- **Art Therapy:** Nyankom created paintings and drawings to express her emotions.
- **Occupational Therapy:** Nyankom developed routines and strategies to manage everyday tasks.

c. How each therapy helped Nyankom understand herself better:

- **Psychotherapy:** It helped Nyankom understand the factors contributing to her anxiety and low self-esteem.
 - **Art Therapy:** It provided Nyankom a way to gain insight into her inner experiences and emotions.
 - **Occupational Therapy:** It helped Nyankom understand her own capabilities and strengths.
- d. The combination of these therapies is likely to have a positive impact, helping Nyankom:
- Manage her anxiety and develop healthier coping mechanisms
 - Increase her self-esteem and confidence
 - Improve emotional regulation and expression
 - Enhance her independence and confidence in daily tasks
6. Refer to the note on: *Investigation of who a therapist is and enumeration of the various specialties on pages 9-11.*
7. Below are some skills and qualities needed as a therapist
- Strong communication to understand and interact with patients
 - Empathy and patience to provide compassionate care
 - Critical thinking to assess conditions and create treatment plans
 - Knowledge of the latest treatments and techniques
 - Attention to detail to monitor progress
 - Creativity to develop engaging therapy sessions
 - Organizational skills to manage caseloads
 - Collaboration with other healthcare providers
 - Continued learning to stay up to date
 - Emotional intelligence to provide support
8. Refer to notes on: *Identification of the various therapeutic devices used by the therapist on pages 13-19.*
9. Hint:
- Customised Treatment Plans
- Therapeutic devices allow therapists to create highly customised treatment plans tailored to each patient's unique needs and abilities. By selecting the appropriate walker, resistance band, orthotic, or other tool, therapists can address the specific impairments and functional limitations of the individual. This level of personalisation is essential for maximising outcomes.
- Objective Assessment for making informed decisions.

Many therapeutic devices incorporate measurement capabilities that enable therapists to objectively assess a patient's progress over time. For example, using a dynamometer to measure grip strength or gait analysis tools to track changes in walking patterns. This data helps therapists make informed decisions about adjusting the treatment plan.

- Facilitating function

Therapeutic devices are designed to help patients regain or improve their ability to function independently in everyday life. By supporting mobility, strengthening muscles, or providing stability, these tools enable patients to practice and relearn the skills needed for self-care, work, and leisure activities.

- Patient engagement

Actively incorporating therapeutic devices into the treatment process can help keep patients engaged and motivated. Patients often appreciate the firsthand, interactive nature of using these tools, which can boost their recovery process.

- Collaboration with other providers

Therapists regularly collaborate with other healthcare professionals, such as physicians, prosthetists, and equipment suppliers to discuss the use of therapeutic devices. This forms a key part of the interdisciplinary approach to patient care.

- Professional Expertise

Selecting, fitting, and training patients on the proper use of therapeutic devices requires specialised knowledge and skills.

Extended Reading

- Click [here](#) to read more on therapeutic devices

PSYCHOLOGIST	PSYCHIATRIST
Trained and licenced health professional	Trained medical doctor
Cannot prescribe medication	Prescribes medication
Assess and treat various mental health issues like depression, anxiety and relationship problems	Diagnose and treat, psychiatric disorders such as bipolar disorder and schizophrenia
Works in settings like counselling centres, schools and research institutions	Works in hospital, clinics and practice

Fig. 6.18: Differences between a psychologist and a psychiatrist

References

- Coleman, E. R., Moudgal, R., Lang, K., Hyacinth, H. I., Awosika, O. O., Kissela, B. M., & Feng, W. (2017). Early rehabilitation after stroke: a narrative review. *Current atherosclerosis reports*, 19, 1-12.
- ScienceDirect. (n.d.). Therapeutic purpose. (<https://www.sciencedirect.com/topics/engineering/therapeutic-purpose#:~:text=Therapeutic%20devices%20are%20instruments%20or,such%20as%20bikes%20and%20treadmills>)

Acknowledgments



Ghana Education
Service (GES)



List of Contributors

Name	Institution
Solomon Wireko	Kumasi Technical University
Henry Kyeremateng Acheampong	Kumasi Center for Collaboration Research
Richmond Yeboah	Kumasi Technical University
Davidson N. K. Addo	Bosomtwe Girls STEM