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Physical Education & Sports for Differently-Abled

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- 4.3 Types of Disorder, Its causes and Nature.
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INTRODUCTION

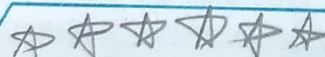
"Strength does not come from physical capacity. It comes from an indomitable will." —**Mahatma Gandhi**

Most of us take our lives for granted. Despite being physically fit, we keep complaining and making excuses. And here they are : the so-called differently-abled people, who prove that you don't need two hands, legs or eyes to succeed. All you need is willpower and firm determination.

Differently abled person was first proposed (in the 1980s) as an alternative to disabled, handicapped, etc. on the grounds that it gave a more positive message and so avoided discrimination towards people with disabilities. The term has gained a little currency, but the accepted term in general use is still disabled.

4.1 CONCEPTS OF DISABILITY AND DISORDER

Concept of Disability



Disability is an impairment that may be cognitive, developmental, intellectual, mental, physical, sensory, or some combination of these. It significantly affects a person's life activities and may be present from birth or occur during a person's lifetime.

According to the world health organizations, "Disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations."



Disability

Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives.

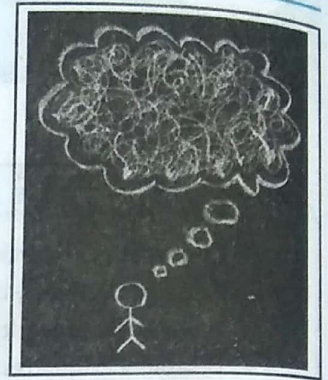
In simple words, some people have some difficulties which other people do not have like difficulty in hearing, speaking, etc. some people do not have hand or feet; while some do not have sensations in them. Such people are considering being disable and such difficulties as disability.

It is the inability to carry out certain activities considered normal for his/ her age, sex, etc. due to any loss or abnormality of physiological, psychological or anatomical structure or function.

Concept of Disorder

Disorder is mostly associated with psychological disorders. A psychological disorder is a mental illness that affects the functioning of an individual where he or she has difficulty in completing tasks of the day to day life. Mental disorders can be caused due to various reasons ranging from accidents to genetics. These can be treated using therapeutic methods as well as medication.

This can clearly affect the performance of the individual as it slows down his usual performance. At the initial stages, disorders can be difficult to identify as they affect the individual in a Primary stage. The symptoms of disorder can be obviously observed after some time. This is why a specific time period is stated before diagnosis.



Disorder

DIFFERENCES BETWEEN DISABILITY AND DISORDER

Disability	Disorder
Disability is disservice that confines the capacities, functions, developments or movements of an individual.	Disorder is the disturbance which affects the normal functions that is performed by an individual.
It is frequently associated with the parts of the body of an individual.	It is frequently associated with brain and mental competency.
Different kinds of disability such as physical disability, partial disability mental disability and so forth.	Different kinds of disorder such as mental disorders, attention disorder, eating disorder, anxiety disorder and so forth.
Individuals experiencing disability can't retreat to being as they were before.	Individual experiencing disorder can retreat to being as they were before.
Disabled individuals in different notions are qualified to get extraordinary benefits. They are qualified for get dedicated seats/compartments in public transport, employment, training and so on.	Individuals experiencing disorder are not able to get so much benefits in proportion to the benefits that are given to the disabled persons.

4.2 TYPES OF DISABILITY, ITS CAUSES AND NATURE

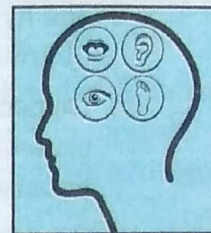
Types of disabilities such as various physical and mental impairments that can hamper or retard a person's ability to carry out his day to day activities. These impairments can be termed as disability of the person to do his or her day to day activities.

These impairments can be termed as disability of the person to do his day to day activities as previously. "Disability" can be broken down into a number of broad sub-categories, which include the following:

1. **Physical disability:** A physical disability is a limitation on a person's physical functioning, mobility, agility or stamina. Other physical disabilities include impairments which limit other facets of daily living, such as respiratory disorders, blindness, epilepsy and sleep disorders.

Types of Physical Disability: They are further categorized into:

- Mobility impairment** includes physical defects, including upper or lower limb loss or impairment, poor manual agility, and damage to one or more organs of the body. Disability in mobility can be an inborn or acquired problem, or a consequence of disease. People who have a broken skeletal structure also fall into this category.
- Visual impairment** is another type of physical impairment. These types of injuries can also result in severe problems or diseases such as blindness and ocular trauma.
- Hearing loss** is a partial or total inability to hear. Deaf and hard of hearing people have a rich culture and benefit from learning sign language for communication purposes. People who are only partly deaf can sometimes make use of hearing aids to improve their hearing ability.
- Physical impairment** can also be attributed to disorders causing sleep deficiency, chronic fatigue, chronic pain, and seizures.



Physical Disability

Causes of Physical Disability

Physical disability may occur anytime in the complete life span as pre-natal *i.e.* before birth, peri-natal *i.e.* from birth to 4 weeks and post natal, *i.e.* after 4 weeks till death. The cause of physical disability is different in these three stages. These are:

- Pre-natal disabilities may be due to diseases or substances that the mother has been exposed to during pregnancy, embryonic or foetal developmental accidents or genetic disorders.
 - Pre-natal disabilities can be due to prolonged lack of oxygen or obstruction of the respiratory tract, damage to the brain during birth (due to the accidental misuse of forceps, for example) or the baby being born prematurely. These may also be caused due to genetic disorders or accidents.
 - Post-natal disabilities can be due to accidents, obesity, infection or other illnesses. These may also be caused due to genetic disorders. It can also occur by bleeding of the brain during delivery.
2. **Cognitive Disability:** Cognitive disorders are a category of mental health disorders that primarily affect learning, memory, observation, and problem solving. Cognitive disorders are described as those with "a significant impairment of cognition or memory that represents a marked deterioration from a previous level of function".

Types of Cognitive Disability: They are categorized into:

- Delirium** is a mental disorder that makes difficult to deal with new information and situational awareness. It usually has a high rate of beginning ranging from minutes to hours and sometimes days, but it does not last for very long, only a few hours to weeks. Delirium can also be accompanied by a shift in attention, mood swings, violent or extraordinary behaviours, and hallucinations.
- Dementia** is known as a genetic or trauma induced disorder that erases part or all of the patient's memory. It is usually associated with but not restricted to the elderly. It is also usually accompanied by another cognitive dysfunction. For non-reversible causes of dementia such as age, the slow decline of memory and cognition is lifelong.
- Amnesia** patients have trouble in retaining long-term memories.

Causes of Cognitive Disability

Causes vary between the different types of disorders but most include damage to the memory portions of the brain. The causes of cognitive disability are:

- Delirium can be caused by the worsening of previous medical conditions, abuse of medications or drugs, alcohol or drug withdrawals, mental illness, severe pain, immobilization, lack of sleep

and hypnosis. Other common causes that may increase the risk of delirium include infections of urinary tract, skin and stomach, pneumonia, old age and poor nutrition.

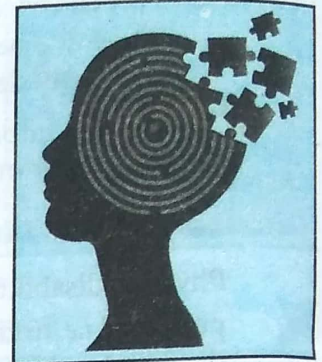
- (b) Dementia can have numerous causes: genetics, brain trauma, stroke, and heart issues. The main causes are diseases such as Alzheimer disease, Parkinson's disease, and Huntington's disease because they affect or weaken brain functions.
- (c) Amnesia can be caused by concussions, traumatic brain injuries, post-traumatic stress, and alcoholism. Many problems are caused by damage to major memory encoding parts of the brain.

3. Intellectual disability: Intellectual disability also known as general learning disability and mental retardation is a generalized neurodevelopment characterized by significantly impaired intellectual and adaptive functioning. It is defined by an IQ score under 70 in addition to deficits in two or more adaptive behaviours that affect every day, general living.

Types of Intellectual Disability: Intellectual disability is subdivided into:

- (a) **Syndromic intellectual disability:** in which intellectual deficits associated with other medical and behavioural signs and symptoms are present.
- (b) **Non-syndromic intellectual disability:** in which intellectual deficits appear without other abnormalities.

The intellectual disability is very common in children, nearly one-third to one-half.



Intellectual Disability

Causes of Intellectual Disability

The common reasons for this disorder are:

- (a) **Genetic conditions:** Sometimes disability is caused by abnormal genes inherited from parents, errors when genes combine, or other reasons.
- (b) **Problems during pregnancy:** Intellectual disability can result when the foetus does not develop properly. For example, there may be a problem with the way the foetus' cells divide as it grows. A pregnant person who drinks alcohol or gets an infection like rubella during pregnancy may also have a baby with intellectual disability.
- (c) **Problems at birth:** If a baby has problems during labour and birth, such as not getting enough oxygen, he or she may have developmental disability due to brain damage.
- (d) **Exposure to certain types of disease or toxins:** Diseases like whooping cough, measles, or meningitis can cause intellectual disability if medical care is delayed or inadequate. Exposure to poisons like lead or mercury may also affect mental ability.
- (e) **Iodine deficiency:** is the leading preventable cause of intellectual disability in areas of the developing world where iodine deficiency is endemic. Iodine deficiency also causes goitre, an enlargement of the thyroid gland.
- (f) **Malnutrition:** is a common cause of reduced intelligence in parts of the world affected by famine.

4.3 TYPES OF DISORDER, ITS CAUSES AND NATURE

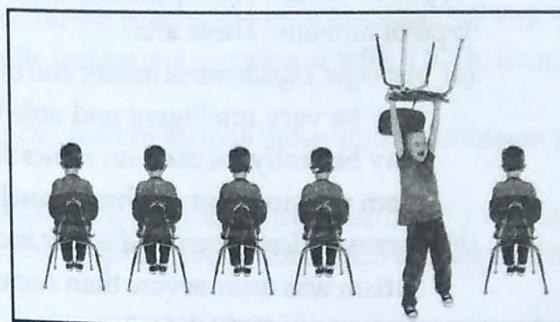
Disorder is a functional abnormality or disturbance associated with distress or disability that occurs in an individual and is not a part of normal development or culture.

Types of disorder are the psychological patterns observe in an individual which is not considering as normal development. These categories are:

1. **ADHD: Attention deficit hyperactivity disorder** is a mental disorder of the neurodevelopment type. It is characterized by problems paying attention, excessive activity, or difficulty in controlling behaviour which is not appropriate for a person's age. These symptoms begin by age six to twelve and are present for more than six months. They cause problems in at least two settings (such as school, home, or recreational activities). In children, problems paying attention may result in poor school performance. Although it causes impairment, particularly in modern society, many children with ADHD have a good attention span for tasks they find interesting.

Causes of ADHD

Despite being the most commonly studied and diagnosed mental disorder in children and adolescents, the exact cause is unknown in the majority of cases. However, it is believed to involve interactions between genetic and environmental factors. Certain cases are related to previous infection or trauma to the brain:



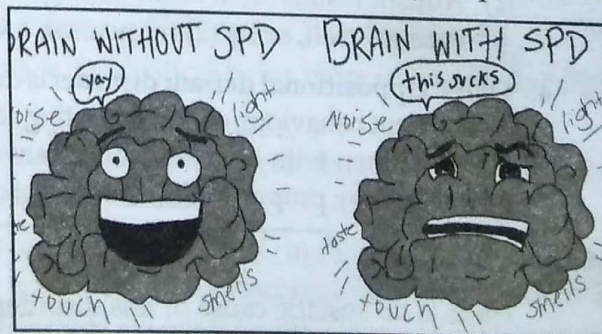
ADHD

- (a) This disorder is often inherited from parents to their child with genetics. Siblings of children with ADHD are three to four times more likely to develop the disorder than siblings of children without the disorder. Genetic factors are also believed to be involved in determining whether ADHD persists into adulthood.
- (b) Some environmental factors might play important role. Alcohol intake during pregnancy, children exposed to certain toxic substances, exposure to tobacco smoke during pregnancy, extreme premature birth, very low birth weight, and extreme neglect, abuse, or social deprivation also increase the risk as do certain infections during pregnancy, at birth, and in early childhood.
- (c) The diagnosis can represent family dysfunction or a poor educational system rather than an individual problem. Some cases may be explained by increasing academic expectations as the youngest children in a class have been found to be more likely to be diagnosed possibly due to their being developmentally behind their older classmates. It occurs more commonly in children who have experienced violence and emotional abuse.

2. **SPD: Sensory processing disorder** is a condition in which the brain has trouble receiving and responding to information that comes in through the senses. Some people with sensory processing disorder are oversensitive to things in their environment. Common sounds may be painful or overwhelming. The light touch of a shirt may scratch the skin.

Others with sensory processing disorder may:

- (i) Be uncoordinated
- (ii) Bump into things
- (iii) Be unable to tell where their limbs are in space
- (iv) Be hard to engage in conversation or play



SPD

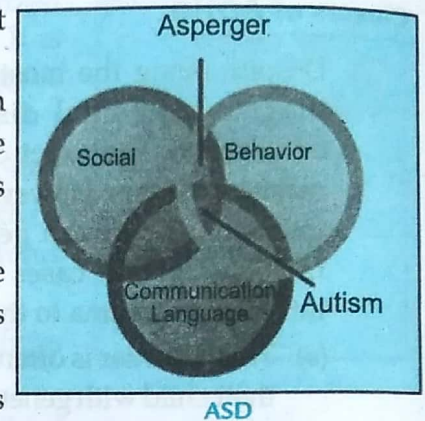
Causes of SPD

Sensory processing problems are usually identified in children. But they can also affect adults. The exact cause of sensory processing problems has not been identified. But a study found that hypersensitivity to light and sound may have a strong genetic component. Children with sensory processing problems have abnormal brain activity when they are simultaneously exposed to light and sound. Children with sensory processing problems will continue to respond strongly to a stroke on the hand or a loud sound, while other children quickly get used to the sensations.

3. **ASD: Autism spectrum disorders** include social, communication, and behavioural challenges. These problems can be mild, severe, or somewhere in between. Early diagnosis is important, because early treatment can make a big difference.

Types of ASD: This spectrum disorder includes much different type of autisms. These are:

- Asperger's syndrome* is milder end of the autism spectrum. Person may be very intelligent and able to handle her daily life. She may be really focused on topics that interest her and discuss them nonstop. But she has a much harder time socially.
- Pervasive developmental disorder* included most children whose autism was more severe than Asperger's syndrome, but not as severe as autistic disorder.
- Autistic disorder* is further along the autism spectrum. It includes the same types of symptoms, but at a more intense level.
- Childhood disintegrative disorder* was the rarest and most severe part of the spectrum. It describes children who develop normally and then quickly lose many social, language, and mental skills, usually between ages 2 and 4. Often, these children also developed a seizure disorder.



Causes of ASD

Specific causes of autism spectrum disorders have yet to be found, many risk factors have been identified in the research that may contribute to their development. These risk factors include genetics, prenatal and perinatal factors, neuroanatomical abnormalities, and environmental factors. It is possible to identify general risk factors.

- Genetic factors play a role in autism. The prevalence of autism in siblings of autistic children is approximately 15 to 30 times greater than the rate in the general population.
- Several pre-natal and post-natal complications have been reported as possible risk factors for autism. These risk factors include maternal gestational diabetes, maternal and paternal age over 30, bleeding after first trimester, and use of prescription medication during pregnancy. Low vitamin D level in early development has been hypothesized as a risk factor for autism.
- Autism results from brain damage caused either by (1) the measles, mumps, rubella (MMR) vaccine itself, or by (2) thimerosal, a vaccine preservative.

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 4. **ODD: Oppositional defiant disorder** is defined as "a pattern of angry/irritable mood, aggressive/disobedient behaviour, or cruelty lasting at least six months". Unlike children with conduct disorder (CD), children with oppositional defiant disorder are not aggressive towards people or animals, do not destroy property, and do not show a pattern of theft or deceit.

Causes of ODD

There is no specific cause of this disorder. Some common causes of this disorder are mentioned below:

- (a) Parents pass on a tendency for disorders to their children that may be displayed in multiple ways, such as inattention, hyperactivity, or oppositional and conduct problems. ODD also tends to occur in families with a history of ADHD, substance use disorders, or mood disorders, suggesting that an exposure to develop ODD may be inherited. A difficult temperament, impulsivity, and a tendency to seek rewards can also increase the risk of developing ODD.

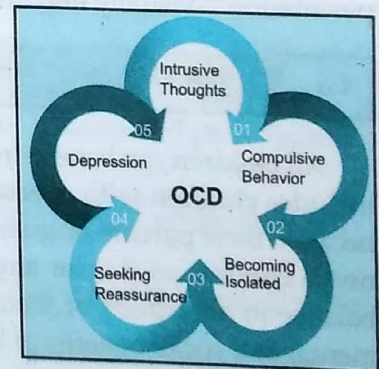


ODD

- (b) Many pregnancy and birth problems are related to the development of conduct problems. Malnutrition, specifically protein deficiency, lead poisoning, and mother's use of alcohol or other substances during pregnancy may increase the risk of developing ODD. Although pregnancy and birth factors are correlated with ODD, strong evidence of direct biological causation is lacking.
- (c) Deficits and injuries to certain areas of the brain can lead to serious behavioural problems in children.
- (d) Some of these deficits include immature forms of thinking (such as egocentrism), failure to use verbal mediators to regulate his or her behaviour, and cognitive distortions, such as interpreting a neutral event as an intentional hostile act.
- (e) Negative parenting practices and parent-child conflict may lead to antisocial behaviour, but they may also be a reaction to the oppositional and aggressive behaviours of children. Factors such as a family history of mental illnesses and/or substance abuse as well as a dysfunctional family and unpredictable discipline by a parent or guardian can lead to the development of behaviour disorders. Insecure parent — child attachments can also contribute to ODD. Family instability and stress can also contribute to the development of ODD.

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5. **OCD: Obsessive-compulsive disorder** is a mental disorder where people feel the need to check things repeatedly, perform certain routines repeatedly (called "rituals"), or have certain thoughts repeatedly. People are unable to control either the thoughts or the activities for more than a short period of time. Common activities include hand washing, counting of things, and checking to see if a door is locked. Some may have difficulty throwing things out. These activities occur to such a degree that the person's daily life is negatively affected. Often they take up more than an hour a day. Most adults realize that the behaviours do not make sense. The condition is associated with tics, anxiety disorder, and an increased risk of suicide.



OCD

Causes of OCD

The cause is unknown. There are some common reasons of the onset of this disorder. These are:

- (a) There appear to be some genetic components with identical twins more often affected than non-identical twins.
- (b) In cases where OCD develops during childhood, there is a much stronger familiar link in the disorder than cases in which OCD develops later in adulthood.
- (c) A controversial hypothesis is that some cases of rapid onset of OCD in children and adolescents may be caused by a syndrome connected to Group A streptococcal infections, known as paediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS).

4.4 DISABILITY ETIQUETTES

The rules of etiquette and good manners for dealing with people with disabilities are generally the same as the rules for good etiquette in society. Disability etiquette is a set of guidelines dealing specifically with how to approach people with disabilities.

Etiquettes for Dealing with people with Disability

- (i) Never think a person with a disability either wants or requires assistance.
- (ii) Never take rejection of aid as a personal insult.
- (iii) Do not assume upon acceptance of your help, that you know, without being told, what service to perform.
- (iv) Never consider a person who appears to have one kind of disability also has others.
- (v) Don't think a disabled person is dissatisfied with his/her quality of life, and is thus seeking pity.
- (vi) Don't think a person with a disability is easily insulted.
- (vii) Never claim that a person who does not appear disabled, or who uses assistive devices occasionally instead of all of the time, is faking or imagining their disability.
- (viii) Don't assume companions accompanying a person with a disability are there strictly to provide service.
- (ix) Never allow yourself that a person with a disability will be interested to personal questions, particularly in a public setting.
- (x) Never assume that when a person with a disability is in a public place, that they are being escorted by a caretaker, instead of travelling alone

People writing on specific disabilities have given rise to their own unique guidelines. Wheelchair users may, for example, include the rule, "do not grab the push handles of a person's wheelchair without permission." Visually impaired people often list a request to, "identify yourself when you enter a room."

4.5 ADVANTAGES OF PHYSICAL ACTIVITIES FOR CHILDREN WITH SPECIAL NEED

All children can benefit from the exercise, energy release, and pure enjoyment of playing sports. This includes children with special needs. Special needs children are sometimes not encouraged to exercise because their parents or guardians fear they'll be hurt. But physical activity is as important for special needs children as it is for any child. Children with special needs most definitely benefit from having a balance in all aspects of their life: social, physical, and mental. We could all gain from these physical, mental and social benefits of being active.

Participating in sports can help in develop a sense of self-confidence and improve skills in relationship building and working as part of a team. And it can help in weight management. This is a common problem among today's kids.

The benefits of regular physical activities are many:

1. Better overall fitness
2. They improve cognitive benefits
3. They better control of weight
4. They improve healthier bone density
5. Better emotional and psychological health
6. They improve social skills
7. They improve motor skills
8. They improve self-esteem

9. They reduce risk for diseases such as diabetes
10. They improvements in muscle strength, coordination, and flexibility.
11. They improve endurance, cardiovascular efficiency, and possibly increased life expectancy.
12. Experience better balance, motor skills and body awareness.
13. They will show improvement in behaviour, academics, and self-confidence and building friendships.
14. They will have positive changes in their health, quality of life and boost to their self-esteem.
15. They will increase appetite and improve quality of sleep.
16. They will see a decrease in secondary health complications like obesity, high blood pressure, low HDL ("good") cholesterol and diabetes.
17. Will find an outlet for their physical energy, will help them cope with stress, anxiety and depression.

4.6

STRATEGIES TO MAKE PHYSICAL ACTIVITIES ACCESSIBLE FOR CHILDREN WITH SPECIAL NEED

The benefits of physical activity are universal for all children, including those with disabilities. The participation of children with disabilities in sports and recreational activities optimizes physical functioning and enhances overall well-being. Despite these benefits, children with disabilities are more restricted in their participation, have lower levels of fitness, and have higher levels of obesity than their peers without disabilities.

The key barriers to participating in sport and physical activities for the disabled students are on:

- (i) Lack of policies detailing a program or educational institution's obligations to provide physical activity and sport opportunities for individuals with disabilities.
- (ii) Lack of resources and training to administrators and program providers in how to create programs and general environments for individuals with disabilities.
- (iii) Absence of complete and disability specific physical activity programs in schools, colleges and universities.
- (iv) Lack of awareness in parents and youth with disabilities of their rights to enter and participate in physical activity and sports programs.
- (v) Lack of constant support and outreach to policy makers and administrators of physical activity and sports programs on behalf of individuals with disabilities.

To make physical activities accessible for the children with special need, the following strategies can be implemented:

1. Community based programs should be provided to meet the needs of persons with disabilities, such as offering safe, accessible and attractive trails for bicycle, walking and wheelchair activities.
2. People with disability should be involved at all stages of planning and implementing community physical activity programs.
3. Opportunities should be increased for individuals with disabilities to participate in sports and physical activity programme.
4. Health care providers should encourage their patients (individual with disability) to incorporate physical activity into their lives.
5. The media should develop strategies that allot space to diversity of sports and also portray images of children and adults with disability in publicity material.
6. Teachers and staff in childcare and leisure and play settings of children with disability should be guided properly and usefully.

7. Specific skills and tools for coaching or working with and integrating youth with disability should be increased within sports and physical activity programs.
8. Adaptive athletic and physical education program for students with disability such as wheelchair basketball, wheelchair rugby, goal ball should be increased.
9. A nationwide volunteering service for sport and physical activity for people with disability should be developed.